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CITY OF SONORA GENERAL PLAN

ELEMENTS:

Land Use

Circulation / Scenic Highway

Housing

Conservation / Open Space

Noise

Seismic Safety

Safety

Historic Preservation

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CITY OF SONORA

GENERAL PLAN

ELEMENTS:

LAND USE, CIRCULATION, SCENIC HIGHWAY, HOUSING,
CONSERVATION, OPEN SPACE, NOISE,
SEISMIC SAFETY, SAFETY, HISTORIC PRESERVATION

Prepared for the
CITY OF SONORA


Prepared by the
CENTRAL SIERRA PLANNING COUNCIL

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PROJECT DESCRIPTION

Land use planning for the City of Sonora is planning for its citizens, cultural values, natural conditions, and a general quality of life. Such planning requires a coherent and consistent set of actions designed to realize short and long term benefits. In California's cities and counties, the basic format taken to attain these benefits is through a community's general plan. In requiring general plans, the State Legislature has found a general plan desirable for the "physical development of the county or city" (California Government Code Section 65300), and that it be "an integrated, internally consistent and compatible statement of policies for the adopting agency" (Section 65300.5). Nine topic areas, or "elements" as they are commonly called, are mandated to be addressed in the general plan - Land Use, Housing, Open Space, Circulation, Conservation, Safety, Seismic Safety, Scenic Highways and Noise (Section 65302).

This document presents the elements adopted as a result of the 1983-1984 City of Sonora General Plan update program. The first phase of the program resulted in adoption of the Conservation, Open Space, Noise, Seismic Safety, and Safety elements on June 6, 1983. The second phase resulted in adoption of the Housing Element on January 16, 1984, and the Land Use, Circulation, Scenic Highway, and optional Historic Preservation elements on April 2, 1984. Environmental review was implemented as part of the decision making process, and as such, the reader is referred to the draft documents from both phases of the update program for information on environmental findings.

In determining to carry out the general plan update program, the City found that the plan adopted in 1973 and 1974 no longer reflected the requirements of California's planning law, which has changed substantially over the past several years. The elements contained in this plan will set forth a framework for rationally based and informed land use planning decisions in the future.

LAND USE ELEMENT

LAND USE ELEMENT

INTRODUCTION

With respect to its application within a general plan, the term land use refers to putting land, water, and air space to a specific use.* Through over 100 years of growth and development, the City of Sonora has established a pattern of residential, commercial, industrial, institutional, recreational, and open space land uses that area residents are familiar with. The land use element of a general plan serves to guide decision makers in their consideration of land use matters, so that decisions rendered are consistent with community values. Thus, this Land Use Element to the Sonora General Plan is very important toward realizing an efficient and effective pattern of land uses in the future.

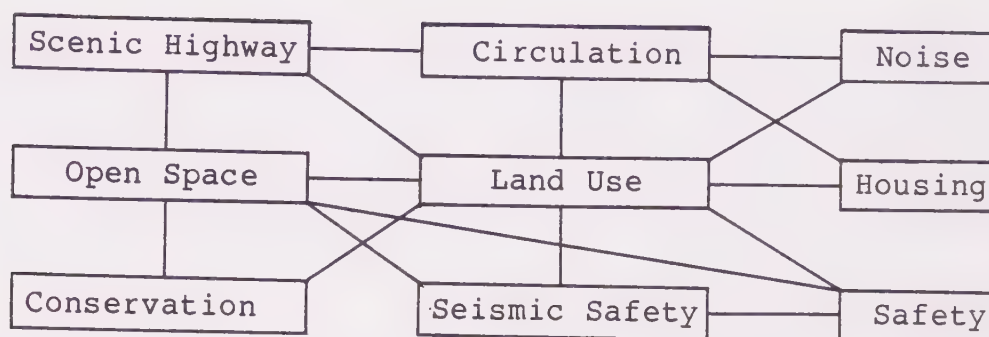
As mandated by the State of California, the requirements for the land use element are outlined in California Government Code Section 65302(a), as follows:

"A land use element which designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall also identify areas covered by the plan which are subject to flooding and shall be reviewed annually with respect to such areas."

The land use element is one of the oldest required elements, added to the State statutes in 1955. It is also the broadest in scope of the nine mandated elements. In light of this, the land use element maintains a statutory link to all general plan elements, as is illustrated on the following page.

*California Governor's Office of Planning and Research, State of California General Plan Guidelines, (Sacramento, 1980), p. 148.

STATUTORY LINKS AMONG ELEMENTS*



*General Plan Guidelines, p. 125.

SUMMARY OF LAND USE DATA BASE

A. Existing Land Use

The City of Sonora covers approximately 1,565 acres, or 2.45 square miles.* Central business district activities in Sonora are concentrated along Washington Street extending to the northerly entry of the City. Commercial activities also extend southwesterly along Stockton Street, and easterly along Mono Way. Residential uses have infilled, in and adjacent to, the commercial areas. Institutional uses (schools, hospitals, churches, etc.) are intermingled with the residential and commercial areas.

For the most part, vacant lands are located on the southern, eastern, and western borders of the City. Estimates of the amount of land devoted to the various land uses are presented in the table below.

TABLE 1
EXISTING LAND USE, CITY OF SONORA

	<u>Acres</u>	<u>% of City</u>
<u>Residential</u>		
- Single family	490	31.31
- Multiple family	55	3.52
<u>Commercial</u>		
- Light	42	2.68
- Heavy	30	1.92
- Tourist Oriented	5	.32
<u>Industrial</u>	1	.06
<u>Institutional</u>		
- Educational	55	3.52
- Medical	16	1.02
- Religious	31	1.98
- Public Administration	50	3.19
<u>Parks and Recreation</u>	5	.32
<u>Transportation</u>		
- Streets and Highways	141	9.01
- Parking	3	.19
- Railroad	4	.26
<u>Vacant</u>	637	40.70
<u>TOTAL ALL CATEGORIES</u>	1,565	100.00%

*Calculations prepared by City Engineer Gerard J. Fuccillo and CSPC.

B. Land Use Trends

1. Residential

The residential land use pattern has remained fairly constant with higher densities close to the commercial area, and lesser densities toward the periphery of the City. This is reflective of the historical development patterns of most Mother Lode cities that have an established residential and commercial core, and outer residential development resulting from active land subdivision in the 1950's and 60's.

While there has been scattered residential construction activity throughout the City, the trend for expansion has been in the eastern area along Greenley Road. Included in this residential growth are three major apartment complexes, the City's approval of the Greenley Oaks project, the Quail Hollow subdivision (adjacent to the City in the unincorporated area east of Greenley Road).

Other areas for which residential development has been discussed or examined include the area commonly known as the Merrihew property east of the "Dome", and the area south of the existing Southgate Addition.

2. Commercial

As previously discussed, commercial activities focus around the central business district, which generally extends the length of Washington Street. Commercial activities radiate from the CBD southwesterly along Stockton Street, and easterly along Mono Way.

There have been several emerging commercial land use trends which warrant discussion in this element:

- One of the most obvious has been the development of the East Sonora commercial strip. The Sonora Plaza shopping center and surrounding commercial uses have firmly established themselves as the western terminus for the commercial strip. As development along Greenley Road continues, combined with a Greenley Road extension, this area could replace downtown Sonora as the most congested for vehicular traffic in Tuolumne County.
- The potential exists for the long term development of a second commercial strip, this being on Highway 49 north of the City. Commercial development has been evolving between the City and the Columbia Y for many years. However, recent land use decisions could accelerate the process, with the Northcam Plaza and Northtown Office Complex serving as a southern terminus to the strip, and the Springfield Center serving as the northern terminus at the Y. This section of Highway 49 could become one of the most sensitive planning issues in the County over the long

term, and will require cooperative planning efforts between the County and City.

- As part of the Southwestern Annexation, the City added and zoned an area on the east side of Highway 108/49 as commercial. Over the long term, this area will create a new location for commercial activities. Being located at the most traveled entrance to the City, its development will be critical to the visual perception travelers have upon entering and leaving the city.
- Finally, and probably most importantly, is the central business district. Through the late 1970's and early 80's, the trend was oriented toward the conversion of retail space to professional office space. However, this trend has declined, and given way to a new area of concern - the encroachment of incompatible commercial land uses in the downtown area. Seeking to preserve a quality downtown environment, action will need to be taken to prevent further encroachment of uses which diminish such quality.

3. Industrial

Until recently, industrial land use, devoted to the manufacturing or processing of materials, has been virtually non-existent within the City under current ordinances. The Tuolumne Foundry became the only manufacturing land use within the City when it was added through the Eastern Annexation. In early 1983, the city rezoned some 48 acres in the southwest portion of the City for manufacturing uses. Part of the area is devoted to the regional sewage treatment plant, and the other part is the site of the old City "dump". It is currently envisioned to develop a portion of the site as an industrial or business park. From an economic planning point of view, this action is timely. Recent trends throughout Tuolumne County are to designate more areas for light industrial use as a step toward diversifying the County's economic base. Given the amount of land previously zoned for industry (Tuolumne Foundry as 1 acre or .06% of the City), designation of the old dump site is an appropriate and prudent decision on the part of the City for short and long term light industrial development.

4. Institutional

There are no readily definable trends with respect to institutional land uses. Most such uses which would tend to locate in the city may do so, if not already allowed by right, upon granting of a use permit.* However, of the defined institutional uses, the area of greatest concern is with the schools.

*Sonora Municipal Code, Section 17.60.030, pp. 276-1 to 277.

The City of Sonora and vicinity is located within the attendance area of the Sonora Elementary School District, and the Sonora High School District. Both district superintendents have recently stated that their campuses are operating at or beyond capacity.* Effective solutions for these cumulative impacts need to be generated from a regional level, requiring interagency cooperation and planning. For example, the City Council, working with the school districts, recently adopted a school impact mitigation fee ordinance, which will relieve some of the adverse impact to the districts created by new residential construction. These activities will need to begin soon in order to avoid significant overcrowding over the short term.

5. Parks and Recreation

Tuolumne County, as part of the Sierra Nevada region, is well known for its year-round recreational opportunities. At the city level, Sonora plays an important role in providing organized park space for resident and visitor populations. As outlined in the Conservation/Open Space Element, there are three organized parks in the Sonora area, and a need for a new park to meet future needs in the Greenley Road area. In anticipation of long term needs, appropriate standards and criteria for organized park development should be established.

C. Economic Concerns of Land Use

The economic environment of Sonora can affect, and be affected by, the manner in which land uses are designated. The Economic Practices Manual** states that "through their decisions, local officials directly affect the distribution, location, and density of land use. These decisions, in turn, are affected by local population and employment changes, and also by local, state, and federal priorities, such as the need to preserve agricultural land or the need for energy facilities". Of concern within a general plan is the development of a policy framework which serves to shape a strong economic environment.

Some of the factors which contribute to the framework include the encouragement of shopping areas of desired character, redefining the role of the central business district and improving access in and around it in order to insure continued vitality, setting aside land for the development of new industry which provides employment opportunities and broadens the City's economic base, and the development of incentives which will attract the kind of businesses that will provide economic stability. Certainly to be included within the framework are considerations for tourism, and its impact upon the City's economic base. Tourism will continue to play an important role in economic development and growth.

*Del Davis Associates, Inc., Draft Environmental Impact Report Proposed Woods Creek P.U.D., (City of Sonora, 1982).

**California Governor's Office of Planning and Research, Economic Practices Manual, (Sacramento, 1978), p. 77.

PLANNING AREA ISSUES AND CONCERNS

The planning area issues and concerns have largely been addressed in Section B, Land Use Trends, and in Section C, Economic Concerns of Land Use. It is from these sections that the appropriate program response has been developed.

GOAL STATEMENT

The following goal is established for guidance of efforts to implement the Sonora General Plan Land Use Element:

"To provide for balanced and effective arrangements of land uses which will maintain the City's position as the center of commerce, administration, service, and culture."

LAND USE MAP DESCRIPTIONS

The Land Use and Circulation map of the City illustrates the general land use allocations which will guide future development patterns. What follows are the descriptions of the land use designations and symbols which are reflected on the map.

1. Residential - Single Family (RS)

The RS designation is applied to those areas where it is intended to preserve the integrity of existing single family neighborhoods, and to reserve lands best suited for future single family development. The RS designation is also applied to those lands where lower density, single family estates are appropriate; in areas conducive to agricultural activity; and to preserve lands in their natural state to provide open space.

Generally, RS areas should develop only where and when adequate facilities and services can be provided to serve them in an economical manner. They should be kept free of activities that produce excessive noise, air pollution, odor or heavy traffic. Development should be guided by design principles which serve to enhance the rural character of the planning area.

The maximum building density for lands under the RS designation is 7.25 dwelling units per net acre (based upon a minimum single family lot size of 6,000 square feet).

The maximum population intensity for lands under the RS designation is 17 persons per net acre (based upon a 1980 Census figure of 2.34 persons per single family household in the City of Sonora).

2. Residential - Multiple Family (RM)

The areas designated RM are intended to provide opportunities for development of multifamily dwellings, as well as single family uses. The RM designation is located near other centers of activity, such as schools, commercial areas, recreation areas allowing for joint use of major access routes and places a greater number of persons at a convenient distance to facilities.

Some locations in RM areas may be appropriate for commercial activities, such as bed and breakfast, or professional offices, provided that such activities are compatible with the neighborhood and do not create a public hazard or nuisance.

The maximum building density for lands under the RM designation is 21.75 dwelling units per net acre.

The maximum population intensity for lands under the RM designation is 34 persons per net acre (based upon a 1980 Census figure of 1.55 persons per multifamily dwelling unit).

3. Commercial (C)

The C designation indicates areas where a broad range of light and heavy commercial activities would be desired. Types of uses being considered as commercial for the purposes of this designation include retail sales, eating and drinking establishments, professional or business offices, automotive sales and service, hotels and motels, storage, wholesaling, processing services, light assembly, and similar developments or activities that would normally be considered "commercial" activity.

Commercial areas are so designated in order to continue the economic well being of the City, and enhance the City's position as the commercial center of the County. Established commercial areas should provide a range of services which meet resident needs; provide variety and interest to visitors, recognizing the importance of the tourist industry; and be protected from the encroachment of incompatible land uses which would be detrimental to existing land uses. Developing commercial areas should compliment - functionally and visually - existing commercial areas.

In instances where multifamily dwelling development is proposed in C designated areas, the population density and building intensity standards of the RM designation apply.

4. Industrial (I)

The I designation is applied to lands conducive to manufacturing or light industrial activity. They have been located in such a manner so as to be harmonious with the business environment, reflective of previous existing use, and potential areas where industrial use is to be encouraged. It is the City's intent to preserve and enhance the quality of the environment in industrial areas while preventing adverse effects of industrial development on the balance of the community. This can be best insured through production of an environmental impact report for new industrial developments which may have significant effects on the environment, as determined through an initial study prepared by the Environmental Review Coordinator for the City.

It is anticipated that by encouraging new industries to locate in the City, the local economic base will be broadened, and will reflect well on the business community. Location of industrial area has been made after due consideration of enough land being available for buildings, parking, expansion, and buffer from adjacent uses; a full range of public services available; access to the circulation network; labor pool readily available; and the opportunity for good community relations.

Population density and building intensity standards do not specifically apply to I designated lands in that they are a non-residential area. In areas with adequate off-street parking for employees and adequate buffer zones from non-industrial uses, maximum building coverage may be eighty percent.

5. Public Facilities (PF)

This designation is applied to major buildings, facilities, or uses of city, county, state, or federal agencies or departments. The area designated PF-E locates the elementary school; the area designated PF-H locates the high school; all other PF areas are major facilities.

Population intensity and building density standards do not specifically apply to PF areas in that they are generally non-residential areas. However, the maximum building coverage can be sixty percent.

6. Planned Development

Although not specifically designated on the Land Use and Circulation Map, planned development activities are eligible throughout the City. The concept of planned development is land use developments by means of a flexible but comprehensive plan which integrates developed land use types, circulation systems, necessary services, and undeveloped areas which conserve open space and natural features. Within the City, two different approaches to planned development are possible. The first is designed to accommodate a variety of residential, commercial and industrial uses, or other uses or combinations of uses which can be made appropriately a part of a planned development. The second approach is designed for planned development activities within developed areas of the City, providing for efficient and economical usage of existing buildings, structures and land while preserving the character of the neighborhood in which the development is located. In both cases, the use of a planned development approach shall be consistent with the general plan, compatible with surrounding uses, and shall not be detrimental to the public health, safety and general welfare of the City.

POLICIES AND IMPLEMENTATION MEASURES

In support of the Land Use and Circulation map, the following policies are established to provide guidance and commitment toward attainment of the stated goal. The implementation measures following each policy are actions intended to carry out the policy.

POLICY: All areas of the City shall have all necessary services available, and proper access to circulation routes.

IMPLEMENTATION: Utilize environmental and subdivision review processes to insure services and access are available in discretionary development projects and rezonings.

IMPLEMENTATION: Review and revise the City zoning ordinance in order to draw consistency with the General Plan, as required by State law.

POLICY: Preserve the scenic and historical character of the City from wasteful and inefficient premature sprawl of developed land uses.

IMPLEMENTATION: Within the environmental review of new development projects, examine such factors as growth inducement, visual impact and aesthetical impact which may occur as a result of new development, and require project revision where specific impacts are identified.

IMPLEMENTATION: Develop with Tuolumne County a coordinated planning process for all areas included within the City's sphere of influence.

POLICY: Encourage a planned development approach when proposed uses warrant special consideration.

IMPLEMENTATION: Implement the provisions of the zoning ordinance as they relate to planned development. Such development (including mixed use) may occur in any part of the City, provided that the general principles of planned development are followed. Planned developments should be reflective of the character of the neighborhood in which they are proposed, and not be incompatible with surrounding land uses or the City as a whole.

POLICY: Provide for attractive, safe and convenient residential areas with appropriate public facilities.

IMPLEMENTATION: Designation and location of residential areas on the general plan Land Use and Circulation map, to be complemented by consistent zoning designations on the Zoning Map.

POLICY: Enhance the economic, social, and historic vitality of the central business district (CBD) by creating a positive atmosphere which encourages businesses to locate in the area, improves access, and creates an important activity center.

IMPLEMENTATION: As a sub-unit to the general plan, the City will develop a CBD plan that will address the long term development concerns of the CBD. Downtown businessmen, area residents, and local officials will be requested and encouraged to work with the City staff in addressing the issues, developing alternatives, and implementing programs which will serve to maintain the City's vitality.

POLICY: Protect the CBD from the encroachment of incompatible land uses.

IMPLEMENTATION: A new central business district commercial (CBD) zone, distinct from the existing C Commercial zone, will be created which is oriented to the unique characteristics and potential of the downtown. The CBD zone would be designed to attract pedestrian shoppers to a pleasant environment. Incompatible land uses allowed by the C zone would be phased out.

POLICY: Encourage high quality design and landscaping of commercial uses adjacent to commercially oriented streets and highways.

IMPLEMENTATION: Enforce the provisions of design review in C and CBD zones, and in any other areas within which the design review zone may be combined.

IMPLEMENTATION: Review and revise as necessary the City's regulations relating to signs.

POLICY: Actively promote business development activities that will generate local employment opportunities and help diversify the local economy.

IMPLEMENTATION: Continue to pursue the development of a Sonora Business Park on City owned land adjacent to the regional sewage treatment plant.

IMPLEMENTATION: Participate in other local economic development activities, as appropriate, which will attract new business activity.

POLICY:

Provide recreation opportunities for the community.

IMPLEMENTATION: It is desirable to plan for the development of park sites in advance of their absolute need. A basic standard of 2 acres of organized park space per 1,000 City population shall attempt to be maintained.

IMPLEMENTATION: Since schools and recreation are closely related, a close liaison between the City, the County, and the high school and elementary school Boards of Trustees is encouraged for the purpose of development of recreational activities.

IMPLEMENTATION: Encourage examination of recreational needs of the very young, with an eye toward expanding the opportunities for elementary and pre-school children.

C I R C U L A T I O N /
S C E N I C H I G H W A Y E L E M E N T

CIRCULATION/SCENIC HIGHWAY ELEMENT

INTRODUCTION

The circulation and transportation system of any community is critical in determining that community's land use pattern. The report of the California Land Use Task Force notes that "Patterns of change in urban and rural areas are affected by the available transportation systems which provide access to jobs, schools, and other goods and services." But, while the transportation system in the City of Sonora and the surrounding area provides such access, it is a system that is showing its age. Downtown Sonora is severely impacted by traffic congestion, necessitating construction of a bypass route; other street and road improvements are needed to facilitate access needs; the availability of parking facilities continues to be of concern; and the needs of areawide public transit also require consideration. Accompanying these concerns is the desire to maintain the scenic qualities exhibited on many of the local highways.

This Circulation/Scenic Highway element combines two State mandated general plan elements. Requirements for the circulation element are found in California Government Code Section 65302(b), which states:

"A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan."

This circulation element joins the land use element as the oldest required element. The scope of the element makes combination with the scenic highway element a logical part of the planning process. Government Code Section 64302(h) outlines the element's requirements:

"A scenic highway element for the development, establishment, and protection of scenic highways pursuant to the provisions of Article 2.5 (commencing with Section 260) of Chapter 2 of Division 1 of the Streets and Highways Code."

The requirements for a scenic highway element joined the State statutes in 1971. It serves to recognize and protect significant scenic routes.

SUMMARY OF CIRCULATION/SCENIC HIGHWAY DATA BASE

A. State Highways

The City of Sonora is bisected by two State highways - the north-south Highway 49, and the east-west Highway 108. The highways comprise the western entrance to the City, generally running parallel to Woods Creek (near the fairgrounds) and Sonora Creek. At the intersection of Washington and Stockton Streets, Highway 49 turns north up Washington Street, past the Red Church, thence out of the City; Highway 108 turns south down Washington Street, thence east out of the City (along Mono Way). The Regional Transportation Plan for Tuolumne County* classifies these routes as minor arterials, having the following characteristics:

- Link cities and larger towns (and other traffic generators, such as major resort areas, that are capable of attracting travel over similarly long distances) and form an integrated network providing interstate and inter-county service.
- Be spaced at such intervals, consistent with population density, so that all developed areas of the State are within a reasonable distance of an arterial highway.
- Provide (because of the two characteristics defined above) service to corridors with trip lengths and travel density greater than those predominantly served by rural collector or local systems. Minor arterials therefore constitute routes whose design should be expected to provide for relatively high overall travel speeds, with minimum interference to through movement.

Traffic volumes have been steadily increasing on Highways 49 and 108 resulting from increased development and recreational usage of the unincorporated areas of Tuolumne County. These traffic volumes result in extreme traffic congestion on these roads through Sonora, especially during peak traffic hours and during periods of peak tourist activity.** Ongoing congestion problems throughout the downtown Sonora area are a significant cause of concern to local residents, merchants, and emergency service providers such as the Fire and Police Departments.***

*Tuolumne County and Cities Area Planning Council, Regional Transportation Plan for Tuolumne County - 1982 Update, (Sonora, CA, 1982) pp. III-6 and III-7.

**Omni-Means, Ltd., City of Sonora Traffic Circulation Study, (Sonora, CA, 1983) p. 2.

***Del Davis Associates, Inc., Draft Environmental Impact Report Proposed Woods Creek P.U.D., (Sonora, 1982) p. 108.

Most notable of the planned State highway improvements is the Sonora Bypass. The bypass is the construction of an approximate 3.0 mile highway bypass facility to replace the Highway 49/108 segment which passes through the downtown area. The alternative which has been selected is a two lane highway facility with climbing lane, including at-grade connection at the east end of the project, and a grade separated left turn lane, for eastbound traffic desiring to turn onto the existing route, at the west end of the project. It is envisioned that the Sonora Bypass will enhance air quality (see the Conservation/Open Space Element), and relieve oppressive traffic congestion in the southerly portion of the downtown Sonora area. Recent estimates indicate a project completion in 1988.* It should be noted that any future access locations to the bypass, other than those in the approved bypass plan, will need approval by the California Transportation Commission.

Other pertinent State highway improvements, as outlined in the Regional Transportation Plan include widening of portions of Highway 49 north of the City to the Columbia Y, and construction of the Sonora Bypass Extension (locally supported but currently not in the State program). The RTP states that "It is recognized that revenues required to correct all deficiencies more than likely will not be available in the foreseeable future".

B. Local Streets and Roads

Recent estimates prepared as part of the land use inventory (see the Land Use Element) reveal that the City maintains approximately 21 miles of streets and roads. Many of the streets are narrow and steep, reflective of the manner in which they were laid out during the mining period. The City's Traffic Circulation Study states that "The traffic related problems that face Sonora today are due in part to the growth of Sonora from a Gold Rush mining town where horses and wagons were the primary means of transportation into a modern community where local automobile traffic mixes with automobiles, buses and trucks passing through the City on the State Highway system. Narrow streets, which at one time were sufficient, have now become choked with parked cars and increasing numbers of automobiles".**

Sonora's internal circulation problems have been recognized for many years. The long-awaited Sonora Bypass, and other proposed regional circulation improvements, will serve to mitigate some of the traffic impacts. However, improvements to the City system will also have to be considered and implemented in order to comprehensively approach the problem. Many of the considerations will include alternatives which have been

*Draft Woods Creek EIR, p. 109.

**Traffic Circulation Study, page 1.

presented before, including new street construction, rehabilitation, widening, closure, and one-way routing. The policies and implementation measures of this element represent a starting point for such actions to occur.

C. Parking

Traffic circulation and the availability of parking are directly related and often combine to form the basis for traffic safety problems in downtown areas.* For many communities in the Mother Lode, the availability of parking in the central business district is a rapidly emerging problem. Increased use of our State highways, competition for tourist dollars, development of traffic intensive land uses in downtown areas, and inefficient or non-existent parking facilities all contribute to the difficult situation these communities face.**

Sonora is one such community. Faced with increased business competition from the unincorporated areas adjacent to the City, the downtown is challenged to provide safe and convenient parking as a component of the overall business atmosphere.

A parking study completed in 1981*** surveyed the parking supply and demand in the downtown area, yielding an estimate of theoretical parking need. The City Traffic Circulation Study took this further by analyzing the parking need based upon the surplus or deficit found in the study zones. The conclusion of this analysis was that, while deficiencies may exist in some of the study area, under average conditions, adequate parking appears to be available in downtown Sonora.**** The report also concluded that during peak summer months, parking shortages may exist due to demand created by tourists.

Even though the Circulation Study recommended that additional parking facilities were not needed to meet current demands, long term needs have to be recongized. In the future, parking development should not only be guided where demand is greatest, but also to where shopper convenience is given high consideration.

D. Public Transportation

There are two types of transportation services which affect the Sonora area - intra-county service provided by the Tuolumne County Public Transportation System, and inter-county service provided by the Greyhound Bus Lines.

*Traffic Circulation Study, p. 22

**Central Sierra Planning Council, Jamestown Parking Study, (Sonora, 1983).

***Central Sierra Planning Council, Parking Study of the Central Business District - Sonora, California (San Andreas, 1981).

****Traffic Circulation Study, p. 35.

The Tuolumne County Public Transportation System began in December 1976 as a rural transportation demonstration project funded under Section 47 of the Federal Highway Act of 1973. The system is a combination of four separate forms of bus transportation: commuter service, continuous fixed-route service, modified demand-response, and contract service. With Sonora being the origin point for services, most of the communities along Highways 49, 108 and 120 are served.

Other intra-county transportation service providers in and around the City include two taxicab companies - Mother Lode Cab and Vintage Cab, Central Sierra Stagecoach (serving the elderly and handicapped), and the Tuolumne County Association for the Handicapped (serving developmentally disabled persons to its facility in Stent).

Greyhound Bus Lines provides inter-county service, linking Sonora with cities in the San Joaquin Valley and the Bay Area. However, services provided by Greyhound have been cutback on the Sonora run, and there are fears locally that Greyhound may eventually try to phase out the run completely. Recent estimates indicate 11,000 persons are served annually into and out of Sonora.*

E. Bicycles

The 1980 Tuolumne County Bike Plan** states "No data exists to indicate the number of bicycle trips that are made by cyclists on Tuolumne County roadways, or where bicycle usage is concentrated. However, touring cyclists can be observed on major roadways, especially during the summer months, throughout the county, and local bicyclists are seen using local streets."

Because of several factors, including terrain, climate, access, and the distance between services or communities, bicycle use is not widespread in Tuolumne County. However, it may be most evident in the City of Sonora because of its centralized location in the County. And, improvements have been made locally which serve to accommodate bicycle use (along Greenley Road, for example).

Recognizing the potential for increased use of bicycles should facilities encouraging their use be developed, proper consideration needs to be given to the development of bicycle routes which link together areas of traffic generation.

F. Pedestrian Facilities

Pedestrian facilities, principally in the form of sidewalks, are an important component of the City's circulation system. Sidewalks serve to separate pedestrian and vehicular

*Regional Transportation Plan, p. III-16.

**Tuolumne County and Cities Area Planning Council, 1980 Tuolumne County Bike Plan (Sonora, 1980), p. I-1.

the water enters the flash mix basin where it is stirred rapidly by a motor-driven propeller. The rapid stirring provides maximum initial contact between water and chemicals, resulting in an efficient and effective process. The water then passes into the flocculation basin, where it is gently stirred by a paddle arrangement. A series of baffles direct the water through the sedimentation basin, where a large amount of the floc settles. Approximately 80% of the water clarification is accomplished in the flocculation and sedimentation period. The process prevents excess turbidity from entering the filters. Retention time for this process is slightly over three hours when operating at maximum treatment rate.

The water is conveyed from the settling basin by an 18 in. Transite line to two-1000 GPM pumps and one-2000 GPM pump, which pump water through three 8 ft. x 27 ft., 2-cell, multiplex filters that are located outside the filter building. The pumps can be selectively operated alone or in any desired combination. Water flows downward through the anthracite coal, sand, and gravel beds in the filters (which removes nearly all the foreign matter from the water). When these filter beds become clogged with material, they are automatically backwashed. The filters can also be set in an adjustable time cycle or can be manually backwashed if the plant operator feels it is necessary.

The filtered water, under pressure, is conveyed by two 12 in. Transite lines to the clear water reservoir. As the water travels through the lines, post-chlorination is injected to achieve the desired chlorine residual in the distribution system. Lime is added to the water for pH or acidity control as the finished product enters the clear water reservoir.

The capacity of this reservoir is 1,200,000 gallons. The plant automatically starts and stops itself as the water in this reservoir raises and lowers. The plant will also automatically shut down in case of a CL2 failure, excess turbidity, loss of water supply, loss of air supply, or loss of power. An annunciator panel monitors these functions and, if one of the above mentioned problems occurs, an alarm is transmitted. An alarm is also transmitted in the event of low water in the clear water basin.

H. Sewage Collection and Treatment*

Tuolumne Regional Water District (TRWD) provides secondary treatment for wastewater generated in and around the City of Sonora. The Sonora Wastewater Treatment Plant was constructed in 1976 with a secondary treatment capacity of 2.6 mgd.

The existing regional transport facilities consist of the collection system in the City of Sonora, an interceptor to transport wastewater from Columbia and Gibbs Ranch Estates to the Sonora plant, and an interceptor to transport wastewater from Twain Harte, Standard, Mono Village, and East Sonora to the Sonora plant. The existing interceptors were designed with capacity to

serve presently unsewered areas. The regional transport facilities and the collection systems are in generally poor condition. Major deficiencies in the systems are due to numerous inverted siphons, lack of standby power facilities for pump stations, and excessive infiltration/inflow contributions.

The Sonora Treatment Plant includes a comminutor, Parshall flume, aerated grit chamber, two primary clarifiers, two trickling filters, two secondary clarifiers, stabilization ponds, a chlorine contact basin, and two-stage anaerobic digestion. The treatment plant also processes approximately 6,500 gallons per week of septage wastes.

Effluent from the Sonora Treatment Plant is transported to Quartz Reservoir. The effluent is used for irrigation of fodder crops and pasture land. Ten irrigation sites are located between the Sonora Treatment Plant and Quartz Reservoir, and an additional nine sites are located south of the reservoir. Effluent flows by gravity to all irrigation sites. At capacity, Quartz Reservoir has a surface area of 46 acres behind a 100-foot-high earthfill dam. The storage capacity of the reservoir is approximately 1,800 acre-feet; however, usable storage capacity is limited to 1,500 acre-feet. An emergency winter diversion valve allows effluent to discharge to Woods Creek if the volume stored approaches the capacity of the reservoir. The effluent disposal facilities are designed for a maximum monthly flow of 4.6 mgd from the Sonora Treatment Plant. Currently, irrigation demands are in excess of the available effluent flows.

Some of the original sewers in the Sonora collection system are more than 50 years old. The sewers were constructed with vitrified clay pipe, cast iron pipe, and reinforced concrete pipe, with various joint materials including cement mortar and sulfur compounds. Several of the major sewers cross under year-round streams, and some were laid on unstable foundations, which have settled, causing the pipe to fail. Some sewer sections contain buried manholes, manholes spaced more than 1000 feet apart, and sharp bends between manholes, all of which contribute to sewer maintenance difficulties. Some sewers were constructed with flat or adverse slopes which cause poor drainage, grease buildup, and blockage. Where sewers have been constructed in heavily wooded areas, root intrusion has caused severe problems. Many sewers are undersized, with some mainline sewers as small as four inches. The majority of the pipelines lie within the paved street rights-of-way, but there are some sections that run in easements between and behind houses, behind the curblines, along creekbeds, and under houses.

*Reprinted from Tuolumne Regional Water District, City of Sonora Sewer System Evaluation, prepared by Black and Veatch Consulting Engineers (Walnut Creek, 1981) p. 3-1 and 3-5.

The side sewers, or house laterals, which connect private property to the District's collection system, are suspected to be in worse condition than the collection system, since they have received less maintenance than the main sewers.

TRWD is currently developing two major projects that will affect local sewage collection and treatment.* The first is correction of infiltration/inflow (I&I) problems associated with the regional treatment plant and the interceptor system. The second is a long term program for correction of deficiencies of the City of Sonora system.

I. Scenic Highways

The designation of a scenic highway or route allows a local government to regulate (1) density and/or intensity of development, (2) require detailed land and site planning, (3) control outdoor advertising, (4) regulate grading and landscaping, (5) apply design review of structures and equipment. The exact standards are determined by the local government after reviewing public commentary.

An official state scenic highway may be designated by first requesting that the Caltrans District Director of Transportation make a corridor survey and a highway facility study. Then the Planning Commission should prepare a program to protect and enhance those characteristics identified in the study. Once public comment is received and the program is adopted, the City Council then requests that the District Director of Transportation designate the route as an official scenic highway.

Local governments may also designate their own scenic routes which may or may not be state highways. By adopting a scenic corridor ordinance, the city determines what standards should be met regarding any or all of the qualifications mentioned above. They also determine a review procedure whereby a review body, such as the Planning Commission, will process applications for development along these routes. Official state recognition is not necessary to implement this procedure.

Although eligible for review for addition to the scenic highway system, neither Highway 49 or 108 has been so designated. Even though the City has not previously made provision for locally designated routes, this plan designates routes of local scenic importance.

*John Pedri, TRWD, Project Manager, personal communication, April 6, 1983.

PLANNING AREA ISSUES AND CONCERNS

- 1) Now finally scheduled for construction, the Sonora Bypass needs continued support through its completion.
- 2) Local support needs to continue for other possible routes which will relieve City traffic problems, such as the Greenley Road Extension, the Sonora Bypass Extension and improvement of Rawhide Road and Jamestown-Shaws Flat Road.
- 3) Internal city street and road improvements need to be planned and implemented in order to complement regional improvements.
- 4) The provision of safe and convenient downtown parking will need constant attention by City officials and downtown merchants.
- 5) Public transportation is playing an increasingly important role in providing an alternative to arriving in and leaving from the City.
- 6) Potential infrastructure problems (water and sewer) pose a significant constraint to the future growth and development of the City.
- 7) Pedestrian access to commercial facilities needs to be insured in the future.

GOAL STATEMENT

The following goal is established for guidance of efforts to implement the Sonora General Plan Circulation/Scenic Highway Element:

"To develop and maintain a system for the efficient, safe, and economical movement of goods and people."

POLICIES AND IMPLEMENTATION MEASURES

The following policies are established to provide guidance and commitment toward attainment of the stated goal. The implementation measures following each policy are actions intended to carry out the policy.

POLICY: Upgrade existing streets and highways, and add new streets and highways to the City and regional system, that meet projected needs and planned functions.

IMPLEMENTATION: The Land Use and Circulation map illustrates the long term improvements to the regional system. The long term improvements supported within this plan include:

- 1) Route 49/108 Sonora Bypass, providing a south-eastern bypass of the City, relieving downtown traffic congestion. The implementation of this bypass is scheduled over the next several years with projected completion in 1988.
- 2) Greenley Road Extension, completing an eastern route around the City only partially completed by Greenley Road. The extension would begin at Lyons-Bald Mt. Road and terminate at Highway 49 north of the City, an approximate length of 1.5 miles.
- 3) Greenley Road to Sonora Bypass, which would serve to link up these two major routes at Old Wards Ferry Road. NOTE: A connection of Wards Ferry Road and the Sonora Bypass has not been included in the bypass alternative selected by the State.
- 4) Reconstruction of the Jamestown/Shaws Flat Road, allowing increased traffic flow on this route to the west of Sonora.

IMPLEMENTATION: The Land Use and Circulation Map illustrates the long term improvements to the City street system. The following major proposals should undergo further consideration.

- 1) A Southgate Drive extension, connecting Southgate Drive and the Sonora Bypass. This connection would allow traffic, especially truck movement, a more direct link to the bypass, rather than having to mix with local traffic on the historic Highway 49/108 route. This would service well the regional sewage treatment plant, the City's business park, and the industrial/storage area of the Woods Creek PUD.
- 2) Bridge over Woods Creek connecting Southgate Drive to Highway 49/108. This bridge will be necessary in order to route traffic from the Woods Creek PUD and the City's business park away from the existing Southgate area behind the fairgrounds.
- 3) Lime Kiln Road improvement. In that Lime Kiln Road is to be connected to the Sonora Bypass, increased traffic on this street can be expected. Therefore, improvement of the street should be considered in the future, as the Sonora Bypass nears completion.
- 4) Ponderosa Drive extension to Leland Drive. This would be new road construction associated with project development. This route would be a contributor to relief of downtown congestion.
- 5) Cabezut Road (Greenley Road to Golden Street and Dodge Lane). This would be new road construction associated with project development, and would provide a crosstown connection from the Greenley area to downtown Sonora as an alternative from Lyons.
- 6) Southgate Drive improvement, which will realign and upgrade the existing road from south of the fairgrounds to the City's business park area. These improvements would largely occur as part of project development.

- 7) Highway 49/108 connection to Lytton Street, which would construct a new road (at Southgate/Highway49/108) to the existing Lytton. This would serve as another crosstown connection which would allow local traffic to avoid downtown traffic.
- 8) Closure of Linoberg between Stewart and Washington Streets. As a one way street, it is underutilized, and creates an unnecessary point of conflict on Washington Street. If closed, it could be converted into a linear park area, which would serve as a visual and functional link between the established commercial uses on Washington, and the developing commercial area on Stewart.
- 9) Designate Yaney Street one-way, east to west, between Washington Street and Lower Sunset Drive. Designate Dodge Street one-way, west to east, between Upper Sunset Drive and Washington Street.

IMPLEMENTATION: Develop other downtown circulation improvements as part of the CBD Plan process explained in the Land Use Element. Considerations should include widenings, intersection improvement, parking improvement, and other one-way routing.

POLICY: Existing city streets should be maintained and upgraded as a priority over the City's construction of new roads, except where public benefit clearly outweighs overall costs.

POLICY: Develop subdivisional road standards which will insure on and off-site roadway and traffic improvements included within new developments.

IMPLEMENTATION: The City will develop definitive standards, policies, and, where appropriate, ordinances relative to on- and off-site roadway and traffic improvements which may be required to mitigate a development's proportionate share of any given direct or cumulative regional impact.

POLICY: Fulfill the parking needs of residents and visitors to Sonora.

IMPLEMENTATION: Implementation of the provisions of the Parking and Business Improvement Area.

- POLICY: Encourage the continued use and development of public and private transportation services.
- POLICY: Pursue the development of bicycle facilities which will provide for safe and efficient bicycle travel.
- IMPLEMENTATION: The Land Use and Circulation Map illustrates the location of bikeways to serve bicyclist needs. New construction, widening, etc., of these roads shall include consideration for bikeways in compliance with standards adopted by Caltrans and as required by Section 2375 and 2376 of the Streets and Highways Code.
- POLICY: All new development projects within the City shall be served by adequate water and sewer systems.
- POLICY: Support efforts to improve the public water and sewer systems.
- IMPLEMENTATION: Support and, as appropriate, assist the County of Tuolumne and the Tuolumne Regional Water District in improvement and expansion of these two critical public infrastructure systems.
- POLICY: Insure the maintenance of and provision for pedestrian facilities in commercial and multifamily areas.
- IMPLEMENTATION: Require by ordinance that new construction or major renovation of commercial or multifamily buildings provide, replace or repair appurtenant sidewalk areas.
- POLICY: Designate routes of scenic importance located within the City.
- IMPLEMENTATION: The Land Use and Circulation Map illustrates routes considered to be of local scenic importance. These streets include Washington Street, Stewart Street between Church and Highway 108, Bradford Street between Washington Street and Highway 49/108, Lyons Street, Greenley Road, and Woods Creek Drive.

HOUSING ELEMENT

RESOLUTION NO. 1-6-86

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SONORA, CALIFORNIA, AMENDING
THE CITY OF SONORA GENERAL PLAN HOUSING ELEMENT.

WHEREAS, the City of Sonora City Council adopted its general plan housing
element in conformance with State law on January 16, 1984; and,

WHEREAS, California Government Code Section 65588 calls for periodic review
and revision to general plan housing elements, the first such revision
for the City required by January 1, 1986; and,

WHEREAS, on December 9, 1985, the Sonora Planning Commission conducted a
public hearing on the housing element update document as prepared by
staff, and recommended to the City Council approval of the document; and,

WHEREAS, on January 6, 1986, the Sonora City Council conducted a public hear-
ing on the housing element update document, as revised based upon com-
ments provided by the Department of Housing and Community Development;
and,

WHEREAS, environmental review has been completed as required by State CEQA and
City EIR Guidelines.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SONORA, AS
FOLLOWS:

1. The City of Sonora General Plan Housing Element is amended
through adoption of the housing element update document,
as attached to this resolution.
2. Copies of this amendment, as well as copies of the entire
general plan, shall be available to the public in the Plan-
ning Department office.

PASSED AND ADOPTED AS A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SONORA
ON JANUARY 6, 1986, BY THE FOLLOWING VOTE:

AYES: Councilmembers Donald A. Calvert, Jack T. Cassinetto, Jim W. Hildreth,
Sharon L. Marovich and Mayor Ronald E. Stearn.

NOES: None.

ABSENT OR ABSTAIN: None.

Dated: January 6, 1986.

Ronald E. Stearn
Ronald E. Stearn, Mayor

ATTEST:

Betty M. Castle
Betty M. Castle, City Clerk

CITY OF SONORA GENERAL PLAN

HOUSING ELEMENT UPDATE

December, 1985

HOUSING ELEMENT UPDATE

INTRODUCTION

Section 65588 of the California Government Code requires that local governments shall review their general plan housing elements "as frequently as appropriate to evaluate the following:

- (1) The appropriateness of the housing goals, objectives, and policies in contributing to the attainment of the state housing goal.
- (2) The effectiveness of the housing element in attainment of the community's housing goals and objectives.
- (3) The progress of the city, county, or city and county in implementation of the housing element."

This same section of the Government Code calls for the first revision of all housing elements for cities and counties in the Central Sierra planning area to be completed by January 1, 1986.

The City of Sonora considers the existing housing element, as adopted by the City Council on January 16, 1984, to still be relevant toward addressing its responsibilities to make adequate provision for the housing needs of all economic segments of the community.

This document amends portions of the 1984 element. The data and analysis presented is reflective of more complete, up-to-date information. The needs analysis also presents statutory information not previously required of housing elements. Further, this document reviews the efforts of the City to provide housing program opportunities within the community. As an amendment supplement to the 1984 element, this document is intended to be reviewed in conjunction with the element.

DATA BASE REVISIONS

A. Analysis of Population

The City of Sonora continues to exhibit the slow annual growth rate as discussed in the 1984 element. The Department of Finance population estimate for January 1, 1985 of 4,055 is only six persons less than the estimate prepared by the Central Sierra Planning Council in 1983. It is reasonable to assume that the one-half of one percent growth rate for the City will continue through the program period (excluding inhabited annexation).

Table 1 on the following page illustrates the pertinent characteristics of the population as of January 1, 1985 (this date coincides with available data from the Department of Finance, and presented within the Central Sierra Planning Area Housing Needs Plan). It is assumed that age and ethnic characteristics continue to have percentages comparable to 1980 Census findings.

B. Analysis of Households

Table 2 on page 4 illustrates household characteristics of the City. These characteristics have been revised as a result of Department of Finance estimates for the City which were ultimately incorporated into the regional housing needs plan. Special needs groups (such as large families or the elderly) continue to have 1980 Census percentages applied to them; except for handicapped persons no further analysis of these special needs groups is considered necessary as it relates to the City's housing programs.

The number of handicapped persons, as listed in Table 2, is derived from those persons who reported a work disability in the 1980 Census. Work disability includes those persons who had a health condition which had lasted 6 or more months and which limited the kind or amount of work they could do at a job. The term "health condition" refers to both physical and mental conditions. Of the 202 estimated handicapped persons in the City, an estimated 66 are in the labor force, 97 are not in the labor force and prevented from working, and 39 are not in the labor force and not prevented from working. Of the Census data available to Sonora, there is no indication as to the type of housing problems encountered by these persons, therefore it is difficult to determine whether a program response can be made within this element.

The figures have been revised for low, moderate, and above moderate income households based upon percentages applied in the regional housing needs plan. These revised figures will be used in implementation of programs responding to the State's and City's housing goals.

C. Analysis of Housing Units

Department of Finance data for January 1, 1985 is the primary source for Table 3. These figures have been downscaled for this revision in order to draw consistency between this element, DOF estimates, and the regional housing needs plan.

No condition of structure figures have been presented within this revision. This is due to the fact that the only data available relating to structure condition is from the 1974 Special Census. This data is believed to be too old for meaningful use for analysis of conditions. However, some generalizations about the housing stock can be made. Specifically, there are a large number of older homes in the City needing rehabilitation due to age of housing, lack of necessary maintenance, and changed building requirements. This has been evidenced by the housing rehabilitation components by Community Development Block Grants funded for South Stewart Street (1984) and Oliver Addition (1985). It is anticipated that housing rehab projects for similar neighborhoods will be reviewed in the future.

D. Projected Housing Need from Central Sierra Planning Area Housing Needs Plan

In late 1985, the housing needs plan for the Central Sierra Planning Area was completed. According to the plan, it is estimated that 113 households will be added to the City during the period January 1, 1985 - July 1, 1992. The specific figures by income group are as follows:

		<u>Households</u>		<u>Percentages</u>	
	<u>Income Group</u>	<u>1985</u>	<u>1992</u>	<u>1985</u>	<u>1992</u>
Sonora	Very Low	557	590	30	30
	Other Low	371	394	20	20
	Moderate	371	394	20	20
	Above Moderate	557	590	30	30
	Total	1,856	1,969	100	100

Given the above household figures, the basic new construction need figures of the original element are changed. Consistent with the housing needs plan, some 175 new construction sites are needed during the period 1/1/85 to 7/1/92 to accommodate the household need. These sites should be available to the income groupings as follows:

Very Low	52
Other Low	35
Moderate	35
Above Moderate	53

TABLE 1 - POPULATION CHARACTERISTICS

Size of Population

Population - 1980 Census	3,247
Est. Population - 1/1/85 Dept. of Finance	4,055
Projected Population - 1/1/90 CSPC	4,156
Projected Population - 7/1/92 CSPC	4,225

Age of the Population - 1/1/85

0 - 4	219
5 - 13	324
14 - 17	203
18 - 21	304
22 - 59	1,849
60 - 64	211
65+	945

Ethnic Composition - 1/1/85

White	3,847
Black	9
Asian	35
American Indian, Eskimo or Aleut	40
Other	124

Sources: 1980 Census of the Population; Central Sierra Planning Council projections.

TABLE 2 - HOUSEHOLD CHARACTERISTICS

	<u>Total</u>	<u>Percentage</u>
Households - 1980 Census	1,490	
Estimated Households - 1/1/85 DOF	1,856	
Projected Households - 1/1/90 CSPC	1,906	
Projected Households - 7/1/92 CSPC	1,969	
 Average Household Size - 1/1/85 DOF	 2.115	
 Large Families - 1/1/85	 91	 4.9%
Elderly Households - 1/1/85	776	41.8%
Handicapped Persons - 1/1/85	202	----
Single Person - 1/1/85		
Male	223	12.0%
Female	444	23.9%
Overcrowded - 1/1/85	85	4.6%
 Low Income Households - 1/1/85	 928	 50.0%
Very Low Income Households	557	30.0%
Moderate Income Households	371	20.0%
Above Moderate Income Households	557	30.0%

Sources: 1980 Census of the Population; Department of Finance
Controlled County Population Estimates for 1/1/85; Central
Sierra Planning Area Housing Needs Plan

TABLE 3 - HOUSING UNIT CHARACTERISTICS

	<u>Total</u>	<u>Percentage</u>
Total Housing Units - 1980 Census	1,670	
Total Housing Units - 1/1/85 DOF	2,005	
Tenure - 1/1/85		
Owner Occupied	1,093	58.88%
Renter Occupied	763	33.69%
Vacant	199	7.43%
For Sale	N/A	
For Rent	N/A	
Other	N/A	
Structure Type - 1/1/85		
Single Family Dwelling	1,137	56.71%
2 - 4 units per structure	420	20.95%
5 or more units per structure	418	20.85%
Mobilehomes	30	1.49%
Costs of Housing		
Median Value	\$74,000	
Fair Market Rents*		
Studio	\$ 267	
1 Bedroom	\$ 329	
2 Bedroom	\$ 386	
3 Bedroom	\$ 481	
4 Bedroom	\$ 536	

* - includes allowance for utility costs.

Sources: 1980 Census of the Population; Department of Finance
Controlled County Population Estimates for 1/1/85.

The 1984 element indicated that redevelopment potentials for new construction sites or rehabilitation would be further evaluated within the first revision. The statement made in the element, that "redevelopment possibilities appear to be of minimal benefit toward provision of housing opportunities", continues to be true at this time. However, the City has made the initial steps toward redevelopment activity; by the end of 1985, two redevelopment survey areas had been designated. Within further redevelopment planning for these areas, appropriate consideration for housing opportunity, consistent with state law, will be made.

E. Need for Emergency Shelter

The State statutes of 1984 added as a housing element requirement an analysis of families and persons in need of emergency shelter. Certainly in Tuolumne County, such a need does exist. There are several agencies which do respond to this need.

The Amador-Tuolumne Community Action Agency maintains a six bedroom emergency shelter. Through May of 1985, the shelter had accommodated approximately 270 families in need of emergency housing. A-TCAA will also contribute for a 2 night motel stay. The agency employs a housing advocate to assist families in finding places to stay.

The Mother Lode Women's Crisis Center, who receives funding and in-kind services from the City, operates an emergency shelter for women (and their children) who have been beaten or threatened by husbands or boyfriends. On an average year, the shelter houses 50 women and 80 children; it should be noted that women and children housed in 1983 and 1984 increased sharply over the 1981 and 1982 years.

The Tuolumne County Welfare Department has received limited funding through FEMA to help pay rent for approximately one month for families that have been evicted.

Finally, there are other miscellaneous organizations (such as St. Patrick's Church, United Methodist Church, and Salvation Army, as examples) who have limited funds set aside for 1-2 night motel accommodations.

F. Governmental Constraints - Storm Drainage

Given Sonora's location within the drainage basins of Woods Creek and Sonora Creek, it can be anticipated that storm water drainage problems will occur. While the City does maintain a storm drainage network, localized problems do occur due to increased surface water runoff, undersized drainage lines, or in some cases no line at all. Within the 1984 and 1985 Community Development Block Grant application processes, the City received funding for storm drainage improvements in the South Stewart Street area and the Oliver Addition. The City may look to this program in the future to address other storm drainage problems that may be identified.

REVIEW OF GOALS, POLICIES AND PROGRAMS

Within the introduction of this document, the evaluation components of Section 65588 of the California Government Code were presented. By way of review, the following are the goal statement and policies of the City of Sonora Housing Element:

GOAL STATEMENT

The following goal is established for guidance of efforts to implement the Sonora General Plan Housing Element:

"Pursuit of a decent home in a suitable living environment for all citizens of the City."

POLICIES

The following policies were to provide commitment toward attainment of the above stated goal:

POLICY: Provide decent housing for all persons regardless of age, race, sex, marital status, ethnic background, level of income, or other arbitrary factors.

POLICY: Provide an adequate supply and choice of housing opportunities by location, type, price and tenure.

POLICY: Develop a balanced residential environment with access to employment opportunities, community facilities, and adequate services.

When comparing these statements with the State's findings and declarations in Section 65580 of the Government Code, it is clear that the City's goal and policies are appropriate toward contributing to attainment of the State housing goal.

The measure of effectiveness of the housing element in attainment of the community's housing goals and policies is in how well the element guides the decisionmaker and staff in the development of housing programs. For a small city, Sonora's housing element has served this purpose well by describing and providing a program direction which is manageable and realistic. The effectiveness is further proven in the progress of the City in implementation of the housing element since its adoption, detailed as follows according to the five program areas which comprise the Five Year Housing Program:

1. Identification of Adequate Sites

-The General Plan Land Use Map, adopted on April 2, 1984, serves as the overall plan for City development.

- Amendments to the zoning ordinance were completed on March 4, 1985 in order to draw consistency between the general plan and zoning.
- Under the City's Planned Development Zoning provisions, the City approved the Woods Creek PD, providing for 296 units of multi-family housing, 100 units of elderly congregate care housing, and 4 single family residential lots.
- The City Council approved the final map for Phase I of the Cuesta Oaks Subdivision, providing lots for 16 single family units.
- Gave approval of a 25% density bonus for Sonora Terrace, a 36 unit multi-family housing project to be constructed under FmHA Section 515 funding.
- Numerous other parcel maps have been processed providing for additional housing sites, all in conformance with the general plan.

2. Assist in the Development of Housing for Low and Moderate Income Households

- The City has submitted, and had funded, two Small Cities Community Development Block Grant applications containing components for housing rehabilitation.
- Supported the use of the FmHA Section 515 program for the Sonora Terrace project.
- In August, 1985, completed amendments to the zoning ordinance providing for a 25% density bonus for projects including low and moderate income housing.

3. Removal of Government Constraints

- Maintain periodic reviews of the general plan and zoning ordinance to reflect changing needs and conditions.
- Within its two CDBG applications, included components for storm drainage improvements serving to correct safety problems.
- Within its 1985 CDBG application, included a component for fire hydrant replacement to correct safety concerns within a predominantly residential area.

4. Conservation and Improvement of the Existing Housing Stock

- Housing rehab components of the two funded CDBG applications are intended to serve 62 units.
- Energy conservation measures continue to be provided by the Amador-Tuolumne Community Action Agency (A-TCAA).
- As of September, 1985, the City reorganized the building department to continue to provide a uniform standard of structural review.
- Through the end of 1985, the HUD Section 8 program continues to be administered by the Central Sierra Planning Council on behalf of the City, serving 43 households.
- The City has continued with its financial support of the Mother Lode Women's Crisis Center, budgeted through June 1986.

5. Promotion of Equal Housing Opportunity

- Continued support of A-TCAA as the designated Fair Housing Authority. Notices of existence of A-TCAA have been posted at City Hall.

As requested by the Department of Housing and Community Development, the City's housing program is presented in this update in order to give a clearer indication as to the time frame and responsible agencies for program implementation.

1. Identification of Adequate Sites

- The General Plan Land Use Map designates land for long term development, including land for housing development. The map will be kept up to date in order to reflect changing needs and conditions. Implemented as a continuous program by the Planning Department, Planning Commission and City Council.
- Amendment to the City's zoning ordinance (Title 17 of the Municipal Code) will be initiated in order to maintain the required consistency between the general plan and zoning. Implemented as a continuous program by the Planning Department, Planning Commission and City Council.
- Chapter 17.49 of the City's zoning ordinance makes provision for the location of mobilehomes on private lots in areas zoned for single family residential. As stated in the ordinance, the intent is to

"increase the supply of single family housing and the variety of housing types available to the public". Implementation of this ordinance will serve to provide more sites within the City for persons needing to pursue this affordable housing alternative. Implemented as a continuous program by the Planning Department and Planning Commission.

- The City has added Chapter 17.55 to the Municipal Code which implements the "granny flat" legislation. This ordinance will allow for the creation of second dwelling units for elderly persons on parcels zoned for single- and multifamily dwellings, subject to conditions. Implemented as a continuous program by the Planning Department and Planning Commission.
- The City's Municipal Code includes provisions for planned developments, which serve to maximize the use of the land. The City will continue to use this zoning tool where applicable and appropriate. Implemented as a continuous program by the Planning Department, Planning Commission and City Council.

2. Assist in the Development of Housing for Low and Moderate Income Households

- Recognizing the reductions that have been made to public funds (federal and state) available for housing the City sees the need for a coordinated effort to make such funding available to residents. The City, lacking a full time staff to do this, will look to the Central Sierra Planning Council's staff and/or the staff of the Department of Housing and Community Development, for assistance in implementation of the following programs, as needed and available:

a) Small Cities CDBG Program

This program assists localities under 50,000 population with housing related activities, especially with impact upon low and moderate income households. The City will continue to work with the CSPC staff to develop housing program components to be included in future CDBG applications. Recognizing that the CDBG program is one of the few programs available to respond to housing needs, it is the City's intent to review such a component in future rounds of CDBG funding.

b) FmHA 502 Homeownership program.

This program provides direct loans to qualifying low and moderate income households. 502 loans may be used to buy, build, repair, renovate or relocate a home. Loans may be for 100% of the cost. CSPC has previously provided assistance to City of Sonora residents for packaging loans to be submitted to FmHA. CSPC does not currently provide such assistance, but may in the future should funding become available to provide these services. The City of Sonora supports the use of FmHA 502 loans within the City through timely review of projects by the Building Department.

c) FmHA 504 Rehabilitation Program

This program provides grant or loan funds to qualifying low or moderate income households for rehabilitation to housing units; needs to correct health or safety related problems. CSPC has provided packaging assistance services in the past, but is no longer able to do so. The City of Sonora supports the use of this program in the City through timely review of projects by the Building Department.

-Within the City of Sonora, the FmHA 515 Multi-unit Construction Program has been extensively used by the private sector. To date, over 160 units have been constructed under the program (all located along Greenley Road). The City supports the use of the program by the private sector in appropriately located areas for such development. Support includes early review and recommendation on projects through the areawide clearinghouse review process, and timely review of projects by the Planning Department, Building Department, Planning Commission and City Council.

-The City recognizes and encourages the provisions of State law requiring density bonuses for builders who construct housing developments with 25% of the units affordable to low and moderate income households, or 10% available to low income households. Toward this end, the City has adopted a density bonus ordinance. Such ordinance details the manner in which the City complies with density bonus provisions. This ordinance will be implemented on a continuous basis by the Planning Department, Planning Commission and City Council.

3. Removal of Government Constraints

- The City will periodically review and update the general plan in order to keep abreast of changing needs and conditions in the area. Implemented on a continuous basis by the Planning Department, Planning Commission and City Council.
- The City will maintain its zoning ordinance consistent with the general plan so that housing opportunities for all income groups remain available. Implemented on a continuous basis by the Planning Department, Planning Commission and City Council.
- The City will periodically review its fees for development permits so that they represent a fair charge for review and processing of applications. Fee schedule review will occur in 1986, with any action to be taken by the City Council.
- As part of its FY 1984 and 1985 CDBG applications to the State, the City included components for correction of storm drainage problems located within defined target areas. Consideration of such a component will be reserved for future CDBG applications submitted by the City Council.

4. Conservation and Improvement of the Existing Affordable Housing Stock

- Energy conservation and weatherization activities are implemented locally by the Amador-Tuolumne Community Action Agency (A-TCAA). Originally implemented by CSPC, such activities have been occurring in the area since 1976. The City of Sonora encourages that such activities continue so that the existing housing stock can be maintained.
- The City has adopted and implements the Uniform Building Code (UBC). It is the City's intent to enforce the provisions of the UBC for the purpose of setting a consistent standard for residential renovation. Implemented as a continuous program by the Building Department.
- Chapters 16.28 and 16.30 of the Municipal Code address the aspect of converting rental housing to condominiums. The City recognizes that maintaining a stock of apartments for rent is of critical importance in the provision of affordable housing to low and moderate income households. These chapters of the code set standards to be met before any such

conversion may take place. Implemented as a continuous program by the Planning Department, Planning Commission and City Council.

- The City, working with the CSPC staff, will look into the possibilities of using the State CDBG program to complete housing rehabilitation activities. Consideration of such application components is reserved for future CDBG applications to be submitted by the City Council.
- The City will continue in its support of the use of the 502 and 504 programs in the City (see part 2 above).
- HUD Section 8 Existing Program. This provides rental assistance to qualifying lower income households. Tenants pay 25% of their income toward rent, the program pays the balance. CSPC implements this program locally on behalf of its member agencies. Currently, there are 21 participants in the program living in Sonora. A major problem with the program is that there are not enough Section 8 "certificates" allocated to the area in order to meet the demand. Consequently, there is a long waiting list for participation in the program.
- Deferred Loan/Section 8 Moderate Rehab Program. This program provides loan funds at a low interest, deferred payback schedule, for rehabilitation of multiple family dwellings. For each unit rehabilitated, a Section 8 certificate is assigned to the unit (in addition to the Section 8 Existing certificates). CSPC has implemented the program locally for its member agencies. A 16 unit apartment structure in the City was rehabilitated under the program. Although funding for the program has been discontinued, CSPC will continue to watch for any possible future funding. The City (through CSPC) will consider application for funds under such a program, or support its use locally.
- As part of its FY 1984 and 1985 CDBG application to the State, the City included a component for rehabilitation of deteriorated or dilapidated housing units located within a defined target area. Consideration of housing rehab components will be reserved for future CDBG applications submitted by the City Council.

5. Promotion of Equal Housing Opportunity

- The Amador-Tuolumne Community Action Agency (A-TCAA) has been designated as the Fair Housing Authority for Tuolumne County, including the City of Sonora. Any complaints presented to the City relating to fair or equal housing issues are to be automatically referred to A-TCAA.

SUMMARY EVALUATION

The City of Sonora feels that it has made great strides toward providing a well balanced housing program supportive of state, regional and local needs. No further amendment to the Five Year Program is considered necessary other than those presented above at this time in that the City is only two years into the program and that the City is following its intent.

The City will amend the housing element in 1989, at the end of the Five Year Program period, to reflect changed housing conditions. The element will then receive its second evaluation and revision in 1992, as required by law.

PUBLIC PARTICIPATION

Within preparation of this update, two public hearings were conducted as required by law before the Planning Commission and the City Council. Additional input to local housing needs was solicited from the staff of the Central Sierra Planning Council, Amador-Tuolumne Community Action Agency, and Central Sierra Agency on Aging.

HOUSING ELEMENT

INTRODUCTION

Throughout the State of California, the provision of adequate and affordable housing is considered to be of prime importance. The State Legislature has affirmed this within Section 65508(a) of the California Government Code by stating "The availability of housing is of vital statewide importance, and the early attainment of decent housing and a suitable living environment for every California family is a priority of the highest order."

The housing element, one of nine elements that is mandated by State law, involved extensive guidelines and regulations in its preparation. Chapter 3, Article 10.6 of the California Government Code (commencing with Section 65580) addresses the major requirements of a housing element. Section 65583 briefly outlines its content:

"The housing element shall consist of an identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives, and scheduled programs for the preservation, improvement, and development of housing. The housing element shall identify adequate sites for housing, including rental housing, factory-built housing, and mobilehomes, and shall make adequate provision for the existing and projected needs of all economic segments of the community."

The City adopted its housing element consistent with California planning law on October, 1981, with a five year program period of September 1981 through September 1986. The 1983 general plan update program has revised the housing element to better address the law's requirements, and to evaluate the effectiveness and progress in implementation of the element. This first revision is required by Section 65588 to be completed by July 1, 1984 (since amended to January 1, 1986).

SUMMARY OF HOUSING DATA BASE

A. Analysis of Population and Employment Trends

The City of Sonora, incorporated in 1851, is the only incorporated city in Tuolumne County. The April 1, 1980 Census of the Population determined the population of the City to be 3,247, an increase of 4.7% over the 1970 population of 3,100.

Subsequent to the Eastern and Southwestern Annexations of 1982, representatives of the population research unit of the Department of Finance certified the population of the City to be 3,977 in October of 1982. It is this figure that will be used as the baseline population figure.

Characteristics of the population are presented in Table 2.

With respect to employment, in the summer of 1981, the Central Sierra Planning Council, with the assistance of the State Employment Development Department, prepared a Labor Force profile for Tuolumne County, including the City of Sonora. It is from that document the following discussion is based.

From 1979 to 1980 the total number of persons employed in all industries in Tuolumne County dropped by 150 to 9,575. This was the first year since 1974 that total employment decreased. Some industries continued expansion despite the economic slowdown while others were forced to cut back.

Growth occurred in four areas. Agriculture increased by 25 jobs, finance/insurance/real estate by 25, retail trade by 25, and government by 50. Increases in agriculture resulted from expanded field crop and nursery production. Increases in retail trade and finance/insurance/real estate stemmed from population growth. The rise in government employment was due largely to CETA hiring at the County level and limited gains in education and State government over the year's period.

Mining, wholesale trade, and services held at 1979 levels with 25, 250, and 2,000 employees respectively. All other industries experienced some cutbacks. Transportation and utilities fell by 25 workers, construction lost 50, and manufacturing, including lumber and wood products, fell by 100. Inflation and high interest rates caused a dramatic slowdown in the housing market, in turn decreasing demand for lumber and resulting in mill layoffs.

The total civilian labor force decreased in 1980 by 175 persons. This was the first decrease in the size of the labor force since records were first kept in 1974. This drop occurred during the same period when the total population grew by 1,106 people to 34,573, according to the Department of Finance.

1980 Census figures give an indication where City residents fall into the above work areas. The following listing illustrates the work classifications in which employed City residents 16 years and over (1,323 total) were placed:

Agriculture, forestry and fisheries	21
Mining	9
Construction	120
Manufacturing	96
Transportation	96
Communications and other public utilities	82
Wholesale trade	103
Retail trade	330
Finance, insurance and real estate	57
Business and repair services	27
Professional services	284
Personal, entertainment and recreation	90
Public administration	79

1980's reversal in the growth trends of the labor force and employed population was symptomatic of the County's economic slowdown. A lack of job opportunities made rural areas in general less attractive to work age immigrants from urban areas, and forced some local residents to leave. However, more recent trends have shown an improvement of the local economy consistent with changes at the national level. This is evidenced by increased construction activity and business expansion since January, 1983.

B. Analysis of Household Characteristics

For the purposes of this analysis, household refers to all persons occupying a dwelling unit. The 1980 Census indicates that 1,490 households existed, or 89.4% of the total housing stock. The average household size was 2.11; within the Land Use Element, 2.34 was used in calculating single family dwellings, 1.55 was used in calculating multifamily dwellings.

Table 3 details the household characteristics of Sonora based upon the 1980 Census' percentages applied to the 1982 baseline population.

These figures indicate a large population of low and moderate income households when compared to the County median of \$14,178. A probable cause for this is the large number of elderly and single person households, which generally have lower gross incomes. Because of this, the number of low and moderate income households burdened by high owner costs or rental payments may be indicative of an appropriate program response being necessary.

Overpayment for housing is generally considered to be the necessity of low and moderate income households to pay more than 25% of their gross income for housing. In 1980, with respect to renters, at least 28% (414) of the total households in the City

TABLE 2 - POPULATION CHARACTERISTICS

	<u>Total</u>	<u>% of 1982 Pop.</u>
<u>Size of Population</u>		
Population - 1980 Census	3,247	
Population - 1982 Dept. of Fin.*	3,977	
Estimated Population - 1-1-85**	4,061	
Estimated Population - 1-1-90**	4,156	
<u>Age of the Population***</u>		
0 - 4	215	5.4%
5 - 13	318	8.0%
14 - 17	198	5.0%
18 - 21	299	7.5%
21 - 59	1,814	45.6%
60 - 64	208	5.2%
65+	925	23.3%
<u>Ethnic Composition***</u>		
White	3,655	
Black	8	
Asian	72	
Spanish	223	
Other	19	

Source: 1980 Census of the Population except * by the State Department of Finance, ** projected by the Central Sierra Planning Council, and *** using 1980 Census percentages applied to 1982 population baseline.

TABLE 3 - HOUSEHOLD CHARACTERISTICS

	<u>Total</u>	<u>% of 1982</u>
Households - 1980	1,490	
Average Household Size	2.11	
Estimated Households - 1982 Baseline*	1,885	
Projected Households		
1985*	1,925	
1990*	1,970	
Large Families*	94	4.9%
Elderly Households*	788	41.8%
Handicapped*	N/A	
Single Person		
Male*	228	12.0%
Female*	450	23.9%
Overcrowded*	87	4.6%
City Median Household Income in 1979	\$11,467	
County Median Household Income in 1979	\$14,178	
Low Income Households*	933	49.4%
Very Low*	498	26.4%
Moderate Income Households*	316	16.8%
Above Moderate Income Households*	636	33.8%

Source: 1980 Census of the Population, except * using 1980 Census percentages applied to the 1982 baseline.

were overpaying. 303 households were of low income, and 111 households were of moderate income; there were no above moderate income households overpaying for rent.

With respect to owner occupied households, at least 8% of the total households were overpaying. 60 of the households were of low income, and 37 households were of moderate income. There were 18 households overpaying in the above moderate income category.

C. Analysis of Special Housing Needs

Table 3 also illustrates the extent to which special housing needs exist for particular groups, such as the elderly, and large families. Although no specific documentation exists locally for the housing needs of these groups, some generalizations can be made which show up throughout the foothills.

With respect to large families (5 or more members) adequate size of housing is the most common problem, and is generally a function of income; that is, the better the income, the better the ability to locate adequate housing. Assuming that income categories remain constant throughout special needs groups, 49.4% of the large families are low income (46), and 16.8% are moderate income (16). Any problems related to large families have not presented themselves to Sonora.

House and property are high concerns for the elderly. Elderly homeowners often face rehabilitation and reconstruction needs, while elderly renters confront the problems of meeting housing costs on limited budgets. Substandard housing is also a problem for elderly renters. Of Sonora's 788 elderly households, an estimated 389 are low income. The city has recently made provision for "granny flats" in single family zoned areas, under certain conditions.

The needs of single person households, nationwide, increased significantly from 1970 to 1980. In Sonora, most of the single person households are elderly, according to Census figures, with the same probable rehabilitation and reconstruction needs present. Of the 450 single female headed households, an estimated 222 are low income.

There are virtually no figures available which indicate the number of handicapped persons living in Sonora in that such data was not collected in 1970, and is not yet available through the 1980 Census. A general assumption can be made that there may be a significant number of handicapped residing in or near the City for easier access to shopping, hospitals, and other services. It can also be assumed that an estimated 49.4% of these households are low income, if you extrapolate the Citywide low income percentage. However, there is nothing to indicate

that a housing problem exists for these individuals. If data becomes available through the 1980 Census, this element will be amended to reflect those figures.

Housing element requirements include the need to discuss housing problems related to farmworker housing. Sonora, a rural foothill community, does not have any such problems, and is thus not a concern.

D. Analysis of Housing Unit Characteristics

Table 4 presents the pertinent figures for review of housing unit characteristics.

TABLE 4 - HOUSING UNIT CHARACTERISTICS

	<u>Total</u>	<u>% of Total</u>
Total Housing Units - 1980	1,670	99.7%
Year Round Units	1,666	
Total Housing Units - 1982 Baseline	2,112	99.7%
Year Round Units*	2,105	
Tenure - Year Round Units, 1982*		
Owner Occupied	981	46.6%
Renter Occupied	905	43.0%
Vacant	219	10.4%
For Sale	11	
For Rent	61	
Other	147	
Structure Type - Year Round Units**		
Single Family Dwelling	1,215	57.7%
Duplex	220	10.5%
Tri or Quadplex	180	8.6%
5+ Units	460	21.9%
Mobilehomes	30	1.3%
Condition of Structure***		
Sound	1,799	85.5%
Deteriorated or dilapidated	253	12.0%
Unsound	53	2.5%
Costs of Housing		
Median Value	\$72,500	
Median Rent	\$ 179	

Source: 1980 Census of the Population, except * using 1980 Census percentages applied to the 1982 baseline, ** based upon 1980 Census figures, Sonora Building Department permit records, and the Annexation EIR, and *** based upon 1974 special census figures applied to 1982 baseline.

The 1974 Special Census indicated 85.5% of the units were "sound". 12% were classified as deteriorating or dilapidated. This percentage does not indicate how many are of a "paintup/fix up" condition, how many are in actual rehabilitation need, and how many are beyond rehabilitation. By the Housing Element Guidelines, "needing rehabilitation" as a housing unit is one which in its present state materially endangers the health, safety, or well being of its occupants in one or more respects and which is economically feasible to repair. If it can be assumed that the 12% classified as "deteriorating or dilapidated" fall within this definition, then 253 units are in need of rehabilitation, and it is these units that a program response should be oriented toward.

E. Projected Housing Needs

Based upon the projected population for the year 1990 (4,156), it is estimated that some 95 new housing units will need to be added to the City's housing stock of 2,112. Assuming that income categories of residents remain constant through 1990, 47 of these units will need to serve low income needs, 16 serve moderate income needs, and 32 serve above moderate income needs. Sonora's generally low growth rate (.47%/year in the period 1970 - 1980) doesn't contribute to a high new construction demand. Should the growth rate accelerate, it would probably be due to some of the larger holdings of land becoming available for development, or as the result of annexation.

With respect to rehabilitation needs, existing needs indicate that 253 units need rehabilitation, which are spread throughout all income categories. It is difficult to quantify any further rehabilitation needs through 1990; however, considering the age of the City's housing stock, it is reasonable to assume that rehabilitation needs will continue at that time. Rather than attempt to make an estimate of rehabilitation needs in 1990, it would be more logical to assume that rehab needs will continue, for which an appropriate housing program response is warranted.

Unsound units (units needing replacement) total 53 at present. As with rehab needs, it can be assumed that by 1990, there will continue to be a small number of units in this category. Again, rather than showing concern over a specific number, concern should be oriented toward a housing program response to deal with these unsound units.

Housing element requirements also include provisions for the community to examine housing redevelopment potentials. Within the City of Sonora, such potentials primarily lie within the older, single family neighborhoods which, over time, have been zoned to accommodate higher densities (R-2, R-3). Given the generally slow growth rate of the City, the large amount of land available for future expansion, and the increased perspective of preservation of many of the older units,

redevelopment possibilities appear to be of minimal benefit toward provision of housing opportunities. At this time, the area doesn't have a redevelopment agency, due in part to these minimal benefits discussed above. Within the next five year planning period, the City will further evaluate redevelopment potentials.

F. Regional Housing Need

The Department of Housing and Community Development has granted a waiver to Sonora from the requirements for assessment of regional housing needs.

G. Land Inventory

Refer to page 3 of the Land Use Element regarding existing land use. The purpose of inventory of land suitable for residential development is to determine whether any problem exists in providing for new residential construction due to a lack of vacant land. Some high growth communities have faced this type of problem; such is not the case in the City of Sonora.

There are an estimated 637 vacant acres of land within the city. By comparing the land inventory field notes with the existing zoning map, it is reasonable to estimate that 367 acres are in residential zoning categories. The following chart lists the five residential zones, and their development potential:

		# Units/ Acre	# Acres Vacant	Potential Units	Potential Population
AR	- Agricultural/ Residential	.2	21	4	8
RE	- Residential Estates	1	75	75	158
R-1	- Single Family Residential	7.25	250	1,813	3,825
R-2	- Limited Multi- family Resi- dential	10.9	6	65	137
R-3	- Multifamily Residential	21.75	15	326	688
TOTAL		N/A	367	2,283	4,816

The above chart is not intended to imply that all of the vacant land will develop (or build out) to the 2,283 units that could potentially be developed under existing zoning. Its purpose is

to demonstrate that enough land does exist within the City to address short term, and in all likelihood, long term requirements for residential development.

In addition to the residentially zoned categories discussed above, 70.5 acres of vacant land are zoned PD, Planned Development*, for which residential projects have been approved, but not constructed. 2.5 acres are devoted to the Greenley Oaks condominium project (61 units), and 68 acres to the Woods Creek PUD, which includes 188 residential units meeting single family and multifamily needs.

Of importance in consideration of these vacant lands is the ability of public facilities and services to serve development on them. The reader is referred to pages 19 through 22 for a discussion of water and sewer systems. Indications are that both of these systems, although needing improvements, would be able to address the short term needs outlined in this element. The City supports the efforts by the County of Tuolumne and the Tuolumne Regional Water District to improve these systems (see page 27).

In reviewing government services, as vacant land the City is able to serve these areas. As they develop, the City will be required to examine service needs, and make adjustments accordingly. This is best reserved for analysis on a case-by-case basis for larger projects, or as the need develops due to the slow growth of the City.

Significant portions of the City are undeveloped, with Residential-Estate Zoning (along the western edge of the City), Single Family Residential (along Snell Street, North Shaws Flat Road, and west of Greenley Road), and Planned Development (Southgate Drive and Greenley Road).

In consideration of the above, and of the basic housing needs, land availability is not a serious problem.

H. Analysis of Governmental and Non-Governmental Constraints

A general plan housing element is required to review the "potential and actual" governmental and non-governmental constraints "upon the maintenance, improvement, or development of housing for all income levels". With respect to a small city like Sonora, actual constraints are few, and potential constraints are likely to be beyond the City's control, or are required of the City.

*Refer to discussion of Planned Development zoning within Land Use Element.

1. Governmental

- The General Plan -

The overall guide to the City's growth and development is the general plan. Required by Section 65300 of the California Government Code, the general plan covers a broad range of topics considered by decision-makers to be of importance to a jurisdiction.

This housing element is just one part of a comprehensive approach which must be taken within a general plan. The general plan update program undertaken by Sonora in 1983 seeks to meet projected housing needs. Further, it is the City's intent to keep the plan up to date in order to reflect changing conditions. As such, the City doesn't consider the plan to be a constraining factor, but a necessary tool to encourage housing in appropriate locations.

- Zoning -

The California Government Code also outlines the minimum requirements for providing zoning laws and ordinances implementing the general plan. It is required that zoning be consistent with the plan in order to insure that the plan's goals, policies and standards are implemented. Current zoning practice within the City serves to allocate lands permitting a variety of residential units. The land inventory reflects that there is an adequate amount of land available to meet current and projected housing needs. While zoning is sometimes perceived as a constraint, it has not been used to preclude housing development in the City.

- Building Codes and Enforcement -

Quite often, building codes are viewed as a contributor to high housing costs by generating delays and requiring construction methods which increase basic costs. However, the adoption and enforcement of such codes is required of municipalities under State law. The City of Sonora has adopted the Uniform Building Code, and inspection services are performed by the City Building Department. By adopting the UBC, it is the City's intent to insure that safe and uniform construction practices are followed. Although a potential constraint exists here, enforcement of the code is not viewed locally as a contributor to not meeting housing needs.

- Fees -

Sonora's fees have been set at a level which helps defray costs associated with permit processing. The chart below compares the City's fees with other small cities in the foothill area:

	<u>Sonora</u>	<u>Angels</u>	<u>Sutter Creek</u>
General Plan Amendment	Cost	\$200	No Fee
Zoning Amendment	\$200	\$100	\$35+ \$1/lot
Tentative Subdivision Map	\$100+ \$2/lot	\$150+ \$3/lot	\$70+ engineer and legal
Use Permit Review	\$100	\$150	\$25
Variance Review	\$ 50	\$150	\$25

As can be seen, the fees compare favorably with the other communities. Unlike many larger, urban jurisdictions which seek to recover most or all of their costs through high fees, Sonora's fees, on the average, only recover a portion of the actual costs of processing an application.

- Permit Procedures -

Procedures for permit processing are similar to those of other small cities, and generally do not result in unnecessary delays. Applications are received at the City Clerk's office, and most are reviewed at the next regular meeting of the Planning Commission, provided that public notice requirements can be met. Some subdivision reviews or zoning or general plan amendments may require additional processing time, depending upon their complexity. The Planning Commission will usually take action and forward, as necessary, to the City Council.

Like so many other small rural communities, the City must rely upon limited staff resources and professional consultants to carry out project review. As a result, this does exist as a potential constraint to the timely review and processing of development applications. However, there is no documented evidence that indicates housing development has been constrained because of this.

Another perceived constraint related to the permit review process are the on- and off-site improvements required of residential development. On site improvements include water services (approximately \$700 hook up fee for new construction per unit), sewer service (\$460 - \$585 hook up fee, plus added costs depending upon the location of the sewer main), electrical service (costs dependent upon location of lines), meeting of fire flow requirements (as per General Order 103 of the PUC), streets developed

to City standards, and provision of parking (two per single family, one and one-half for multiple family), and school impact fee (up to \$150 per bedroom per district, at the discretion of the district). Other on- and off-site improvements such as storm drains, sidewalks, landscaping, or exterior lighting may be necessary, depending upon the nature of the project. On- and off-site improvements are generally required in order to preserve the quality of life for the City as a whole. These are not considered to be constraining upon the provision of housing in the Sonora area.

2. Non-Governmental

- Fluctuating Interest Rates -

In the Sonora area, a full range of financing mechanisms are available (FHA, VA, FmHA, adjustable rate mortgage, as examples). However, high interest rates associated with many of these mechanisms preclude many of the City's low and moderate income residents from entering the housing market, by adding to already burdensome monthly payments. Further compounding this are other costs associated with homeownership, including obtaining enough funds for a down payment, paying loan "points", closing costs, real estate taxes, and insurance. The bottom line is that Sonora residents are no different than anyone else in trying to make the jump to homeownership. And while area loan brokers and realtors agree that the market has improved, the low and moderate income household will continue to find it difficult to realize the dream of owning their own home.

- Construction Costs -

The costs of construction rise as the rate of inflation increases. If this trend continues, and if personal earnings increase at a slower rate, it will be difficult to meet Sonora's housing needs. The problem is not helped by the fact that construction costs in California are generally the highest in the mainland United States. In the Sonora area, the cost of construction of a modest FmHA financed house is about \$45 per square foot; a custom built house is somewhat higher. It is estimated that the cost for multiple family housing is about the same, or slightly less.

- Speculation in Housing and Land -

The demand to live in the Sierra Nevada foothill communities has increased dramatically in the past ten years. As a result, the purchasing incentive for buyers of housing and land for speculative purposes is extremely high. Over a short period of time, inflation increases the resale value of all housing and land to the point

that, once again, it is economically infeasible for many to enter into the housing market. Unimproved acreage in the Sonora area runs from \$10,000 to \$15,000 per acre, according to a recent survey of available properties listed in the Union Democrat. The cost of a single family lot with services available is estimated to range from \$15,000 to \$20,000.

I. Energy Conservation Opportunities

The City of Sonora is no different from any other city or county in its concern over the rising cost of energy. Addressing the opportunities for energy conservation in residential construction is but one part of a more comprehensive commitment necessary to cut energy use. The following discussion relates to potential opportunities available to the City not currently required.

Perhaps the most obvious approach is through the land use planning process. If done with attention to conservation needs, the resulting land use patterns will lead to increased energy efficiency. The development of the land use map within preparation of the land use element of the general plan update should account for this.

The City may choose to define a specific energy policy. Such a policy could set into motion future actions by the City for energy conservation actions.

An energy element to the general plan may be a possibility. Under Section 65303(k) of the California Government Code, optional elements to the general plan may be prepared "which in the judgement of the planning agency relate to the physical development of the county or city". An energy element could result in a greater community awareness of energy concerns, leading to communitywide actions for energy conservation.

The development of a retrofit ordinance may be pursued by the City. According to the State Office of Appropriate Technology, "By the year 2000, 60 percent of the existing housing stock will have been built prior to the adoption of energy efficient building standards."* The purpose of a retrofit ordinance would be to make specific energy conserving measures upon change of ownership of the unit. Modifications could include insulation, weatherstripping, ducts and pipe insulation, and installation of low flow fixtures.

*State of California, Local Energy Initiatives: A Survey of Cities and Counties in California, Sacramento, CA, August, 1980, p. 51.

GOAL STATEMENT

The following goal is established for guidance of efforts to implement the Sonora General Plan Housing Element:

"Pursuit of a decent home in a suitable living environment for all citizens of the City."

POLICIES

The following policies serve to provide commitment toward attainment of the above stated goal:

POLICY: Provide decent housing for all persons regardless of age, race, sex, marital status, ethnic background, level of income, or other arbitrary factors.

POLICY: Provide an adequate supply and choice of housing opportunities by location, type, price and tenure.

POLICY: Develop a balanced residential environment with access to employment opportunities, community facilities, and adequate services.

IMPLEMENTATION MEASURES

In consideration of the housing needs of the City of Sonora, the following implementation programs will be carried out or encouraged as part of the City's Five Year Housing Program:

A. Identification of Adequate Sites

- The General Plan Land Use Map designates land for long term development, including land for housing development. The map will be kept up to date in order to reflect changing needs and conditions.
- Amendment to the City's zoning ordinance (Title 17 of the Municipal Code) will be initiated in order to achieve the required consistency between the general plan and zoning.
- Chapter 17.49 of the City's zoning ordinance makes provision for the location of mobilehomes on private lots in areas zoned for single family residential. As stated in the ordinance, the intent is to "increase the supply of single family housing and the variety of housing types available to the public". Implementation of this ordinance will serve to provide more sites within the City for persons needing to pursue this affordable housing alternative.

- The City has recently added Chapter 17.55 to the Municipal Code which implements the "granny flat" legislation. This ordinance will allow for the creation of second dwelling units for elderly persons on parcels zoned for single- and multi-family dwellings, subject to conditions.
- The City's Municipal code includes provisions for planned developments, which serve to maximize the use of the land. The city will continue to use this zoning tool where applicable and appropriate.

B. Assist in the Development of Housing for Low and Moderate Income Households

- Recognizing the reductions that have been made to public funds (federal and state) available for housing, the City sees the need for a coordinated effort to make such funding available to residents. The City, lacking a full time staff to do this, will look to the Central Sierra Planning Council's staff and/or the staff of the Department of Housing and Community Development, for assistance in implementation of the following programs, as needed and available:

a) Small Cities CDBG Program

This program assists localities under 50,000 population with housing related activities, especially with impact upon low and moderate income households. The City will continue to work with the CSPC staff to develop housing program components to be included in future CDBG applications. Recognizing that the CDBG program is one of the few programs available to respond to housing needs, it is the City's intent to include such a component in future rounds of CDBG funding.

b) FmHA 502 Homeownership program

This program provides direct loans to qualifying low and moderate income households. 502 loans may be used to buy, build, repair, renovate or relocate a home. Loans may be for 100% of the cost. CSPC has previously provided assistance to City of Sonora residents for packaging loans to be submitted to FmHA. CSPC does not currently provide such assistance, but

may in the future should funding become available to provide these services. The City of Sonora supports the use of FmHA 502 loans within the City.

c) FmHA 504 Rehabilitation Program

This program provides grant or loan funds to qualifying low or moderate income households for rehabilitation to housing units; needs to correct health or safety related problems. CSPC has provided packaging assistance services in the past, but is no longer able to do so. The City of Sonora supports the use of this program in the City.

- Within the City of Sonora, the FmHA 515 Multi-Unit Construction Program has been extensively used by the private sector. To date, over 160 units have been constructed under the program (all located along Greenley Road). The City supports the use of the program by the private sector in appropriately located areas for such development.
- The City recognizes and encourages the provisions of State law requiring density bonuses for builders who construct housing developments with 25% of the units affordable to low and moderate income households, or 10% available to low income households. Toward this end, the City will develop and implement a density bonus ordinance. Such ordinance will detail the manner in which the City will comply with density bonus provisions. This ordinance will be prepared during FY 1984-85.
- For qualified projects that clearly respond to the needs of the low income, elderly, or handicapped, the City will consider making application to the Rural Predevelopment Loan Fund. These loan funds are to be used to "write-down" (or reduce) preliminary development costs associated with the development of housing units for the above groups.

C. Removal of Government Constraints

- The City will periodically review and update the general plan in order to keep abreast of changing needs and conditions in the area.
- The City will maintain its zoning ordinance consistent with the general plan so that housing opportunities for all income groups remain available.

- The City will periodically review its fees for development permits so that they represent a fair charge for review and processing of applications.
- As part of its FY 1984 CDBG application to the State, the City will include a component for correction of storm drainage problems located within a defined target area.

D. Conservation and Improvement of the Existing Affordable Housing Stock

- Energy conservation and weatherization activities are implemented locally by the Amador-Tuolumne Community Action Agency (A-TCAA). Originally implemented by CSPC, such activities have been occurring in the area since 1976. The City of Sonora encourages that such activities continue so that the existing housing stock can be maintained.
- The City has adopted and implements the Uniform Building Code (UBC). It is the City's intent to enforce the provisions of the UBC for the purpose of setting a consistent standard for residential renovation.
- Chapters 16.28 and 16.30 of the Municipal Code address the aspect of converting rental housing to condominiums. The City recognizes that maintaining a stock of apartments for rent is of critical importance in the provision of affordable housing to low and moderate income households. These chapters of the code set standards to be met before any such conversion may take place.
- The City, working with the CSPC staff, will look into the possibilities of using the State CDBG program to complete housing rehabilitation activities.
- The City will continue in its support of the use of the 502 and 504 programs in the City (see part B above).

-HUD Section 8 Existing Program

This provides rental assistance to qualifying lower income households. Tenants pay 25% of their income toward rent, the program pays the balance. CSPC implements this program locally on behalf of its member agencies. Currently, there are 21 participants in the program living in Sonora. A major problem with the program is that there are not enough

Section 8 "certificates" allocated to the area in order to meet the demand. Consequently, there is a long waiting list for participation in the program.

-Deferred Loan/Section 8 Moderate Rehab Program

This program provides loan funds at a low interest, deferred payback schedule, for rehabilitation of multiple family dwellings. For each unit rehabilitated, a Section 8 certificate is assigned to the unit (in addition to the Section 8 Existing certificates). CSPC has implemented the program locally for its member agencies. A 16 unit apartment structure in the City was rehabilitated under the program. Although funding for the program has been discontinued, CSPC will continue to watch for any possible future funding. The City (through CSPC) will consider application for funds under such a program, or support its use locally.

-As part of its FY 1984 CDBG application to the State, the City will include a component for rehabilitation of deteriorated or dilapidated housing units located within a defined target area.

E. Promotion of Equal Housing Opportunity

-The Amador-Tuolumne Community Action Agency (A-TCAA) has been designated as the Fair Housing Authority for Tuolumne County, including the City of Sonora. Any complaints presented to the City relating to fair or equal housing issues are to be automatically referred to A-TCAA.

QUANTIFIED OBJECTIVES

In light of the data presented herein, the resources available through federal, state, regional and local efforts, and the implementation measures to be pursued by the City, the following objectives are established relative to the maintenance, improvement, and development of housing through 1990. The figures are based upon the need previously identified, and reflect the ability of the City to address those needs.

New Construction

It is the City's objective that, based upon past construction activity and future population growth, 95 new

housing units be constructed within the City. These units will be constructed by the private sector, and should generally address income category needs as outlined in Section E of this element. The City will assist in meeting this objective by providing an incentive for development of housing for low and moderate income households through a density bonus ordinance, consideration of application to the Rural Predevelopment Loan Fund, and support of the use of the FmHA 502 program.

Rehabilitation

It is the City's objective that approximately 100 housing units be rehabilitated by 1990. The City will participate in meeting this objective through the Small Cities CDBG Program, developed with the assistance of the Central Sierra Planning Council. Such a program will have a 100% benefit to low and moderate income households. Other programs to be used to meet this objective will be through Farmers Home and the State Department of Housing and Community Development, again with assistance from CSPC, or the private sector.

Conservation

It is the City's objective that approximately 150 housing units will be conserved through 1990. The primary programs to complete this will be the Section 8 Existing program administered by CSPC, and the weatherization program administered by A-TCAA. Participation by the City will be through enforcement of the UBC, setting a consistent standard for housing conservation.

PUBLIC PARTICIPATION

The housing element has been completed as part of an overall revision and update to the City's general plan, for which public participation has been encouraged. In addition to the two public hearings held for review of the plan, two study sessions were conducted by the Planning Commission to review the rough draft material, at which time public input was solicited. Further, in the development of the draft document, some interviews were held with City residents, officials, and businessmen to supplement data and needs identification.

CONSERVATION /
OPEN SPACE ELEMENT

CONSERVATION/OPEN SPACE ELEMENT

INTRODUCTION

The City of Sonora recognizes the importance of encouraging and maintaining a high quality natural environment. This is especially critical within consideration of the conservation of our natural resources, and the preservation of open space lands for the future use and enjoyment by the general public. This combined Conservation/Open Space Element of the Sonora General Plan is intended to emphasize the City's concern for the above principles so that future growth and development will respond to them.

The California Government Code Section 65302(d) directs the City to prepare:

"A conservation element for the conservation, development and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other natural resources. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies which have developed, served, controlled or conserved water for any purpose for the county or city for which the plan is prepared. The conservation element may also cover:

- 1) The reclamation of land and waters.*
- 2) Flood control.*
- 3) Prevention and control of the pollution of streams and other waters.*
- 4) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.*
- 5) Prevention, control, and correction of the erosion of soils, beaches, and shores.*
- 6) Protection of watersheds.*
- 7) The location, quantity and quality of rock, sand and gravel resources."*

The scope of the conservation element is such that it is closely related to, and in many instances overlaps, the concerns for the open space element. With respect to open space elements, the California Government Code in Section 65560(a) defines the open space element as follows:

“(a) “Local open space plan” is the open space element of a county or city general plan adopted by the board or council, either as the local open space plan or as the interim open space plan adopted pursuant to Section 65563.

(b) “Open space land” is any parcel or area of land or water which is essentially unimproved and devoted to an open space use as defined in this section, and which is designated on a local, regional or state open space plan as any of the following:

- 1) Open space for the preservation of natural resources including, but not limited to, areas for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.
- 2) Open space used for the managed production of resources including, but not limited to, forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and areas containing major mine deposits, including those in short supply.
- 3) Open space for outdoor recreation including, but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas which serve as links between major recreation and open space reservations, including utility easements, banks of rivers and streams, trails, and scenic highways corridors.
- 4) Open space for public health and safety including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains,

watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality."

The conservation and open space elements of a general plan provide major input into other plan elements, including land use, circulation, safety, seismic safety, and scenic highways. As such, the Conservation/Open Space Element of the Sonora General Plan should be used in conjunction with these other elements so that the environmental management policy direction of the City may be fully understood.

SUMMARY OF CONSERVATION/OPEN SPACE DATA BASE

The following discussion will deal with specific resource areas - Topography, Climate, Air Quality, Hydrology, Wildlife and Wildlife Habitat, Fisheries, Unique Environmental Features/Sensitive Areas, Historical, and Open Space Lands. This inventory and analysis is the basis for the Conservation/Open Space policies and implementation programs, and associated maps. Related resource area topics of geology and soils are discussed within the Seismic Safety Element, to which the reader is referred.

A. Topography

The benchmark elevation for the City is 1,826 feet above sea level. Elevations range from as low as 1,600 feet to about 2,000 feet on some of the surrounding hills. The terrain is common for the foothills area of the Sierra Nevada. The City itself is located in a north-south trending canyon at the intersection of two local drainage basins - Woods Creek and Sonora Creek. The presence of these two perennial streams has provided varied slope steepness and slope aspect within the City. Flatter plateau areas exist north and east of the City.

B. Climate

The planning area lies within a Mediterranean Warm Summer (Csa) climate, characterized by a mild, temperate wet season which generally extends from November through April, and a dry, hot summer period generally from May through October. The average temperature during January is 42 degrees F; the average July temperature is 74 degrees F. Minimum temperatures approach 25 degrees F in January and February, with maximum temperatures approaching 100 degrees F during July.

According to data compiled by The Union Democrat*, the average rainfall in the Sonora area taken over a 95 year period (July 1887 through June 1982) is 32.52 inches per year. Using the above referenced data, the following monthly averages can be derived:

JANUARY	= 6.27	JULY	= .03
FEBRUARY	= 5.58	AUGUST	= .06
MARCH	= 5.46	SEPTEMBER	= .41
APRIL	= 2.77	OCTOBER	= 1.68
MAY	= 1.27	NOVEMBER	= 3.46
JUNE	= .29	DECEMBER	= 5.25

*The Union Democrat, "Sonora Rainfall Chart", Sonora, July 1, 1982.

Seasonal averages based on the above figures are:

SUMMER (July, August, September)	=	.50
FALL (October, November, December)	=	10.39
WINTER (January, February, March)	=	17.31
SPRING (April, May, June)	=	4.33

Local experience indicates that the prevailing surface winds in the planning area are from the west and southwest during the summer, with an average speed of 5 to 12 miles per hour. In some of the larger, more protected canyons, there is the occurrence of late afternoon breezes created by downslope drainage.*

C. Air Quality**

The planning area lies within the southern portion of the Mountain Counties Air Basin, and is presently designated by the California Air Resources Board as an unclassified area for all pollutants. Although it has been proposed that the County be designated a non-attainment area for the pollutant ozone, subsequent information has been prepared which would not support such a designation.

The major air quality problem in the Sonora area is a concentration of carbon monoxide (CO) at the intersection of Washington Street and Stockton Street and the immediate area. The CO collects as a result of vehicles and traffic congestion. Past Tuolumne County Air Pollution Control District monitoring of the intersection has identified "exceedences" of ambient standards established for carbon monoxide. The "canyon effect" created by buildings on Washington Street is a major contributor to the CO buildup. This location represents a worst case situation, and is not representative of the total Sonora area, which generally enjoys excellent air quality.

D. Hydrology

1. Surface Waters***

The City of Sonora and the surrounding planning area is located in three important local drainage basins - Woods, Sonora, and Sullivan Creeks. All of the creeks originate north to northeast of the City, and eventually their waters discharge into

*Del Davis Associates, Inc., Draft Environmental Impact Report Northern Annexation #1, Eastern Annexation #1, and Southwestern Annexation #1 Sonora, CA., (City of Sonora, 1980), p. 45.

**Draft Annexation EIR, pp. 47-51.

***Draft Annexation EIR, pp. 68-76.

Don Pedro Reservoir and the Tuolumne River. The total area of the three drainage basins contains approximately 32.6 square miles.

Woods Creek is perhaps the most significant drainage affecting the City, originating east of Columbia near Yankee Hill. The creek meanders southerly, parallel to Highway 49, crossing under the highway near its intersection with Shaws Flat Road. The creek then winds its way to the western side of the City, passing through Rotary Park and under Highway 49/108 near Southgate Drive. The creek then turns southwest, paralleling the highway, and flows out of the City. A tributary to Woods Creek known as Dragoon Gulch intersects near Rotary Park. The total area of the drainage is approximately 8 square miles.

Sonora Creek originates northwest of the City near Bald Mountain. It flows through relatively undeveloped terrain east of the City, bisecting the downtown in an east-west manner. The creek intersects Woods Creek near Southgate Drive. The total area of the drainage is approximately 3.5 square miles.

Sullivan Creek originates northeast of the City, with a number of smaller drainages contributing to the total drainage basin. It serves as the drainage for the southern portion of the City, and the eastern portion of the planning area, flowing southeast of the City. The total area of the drainage (excluding the Clark Creek drainage) contains approximately 11.1 square miles above its juncture with Woods Creek. Refer to the map on page 54 for further definition of the drainage boundaries.

2. Flooding Potential*

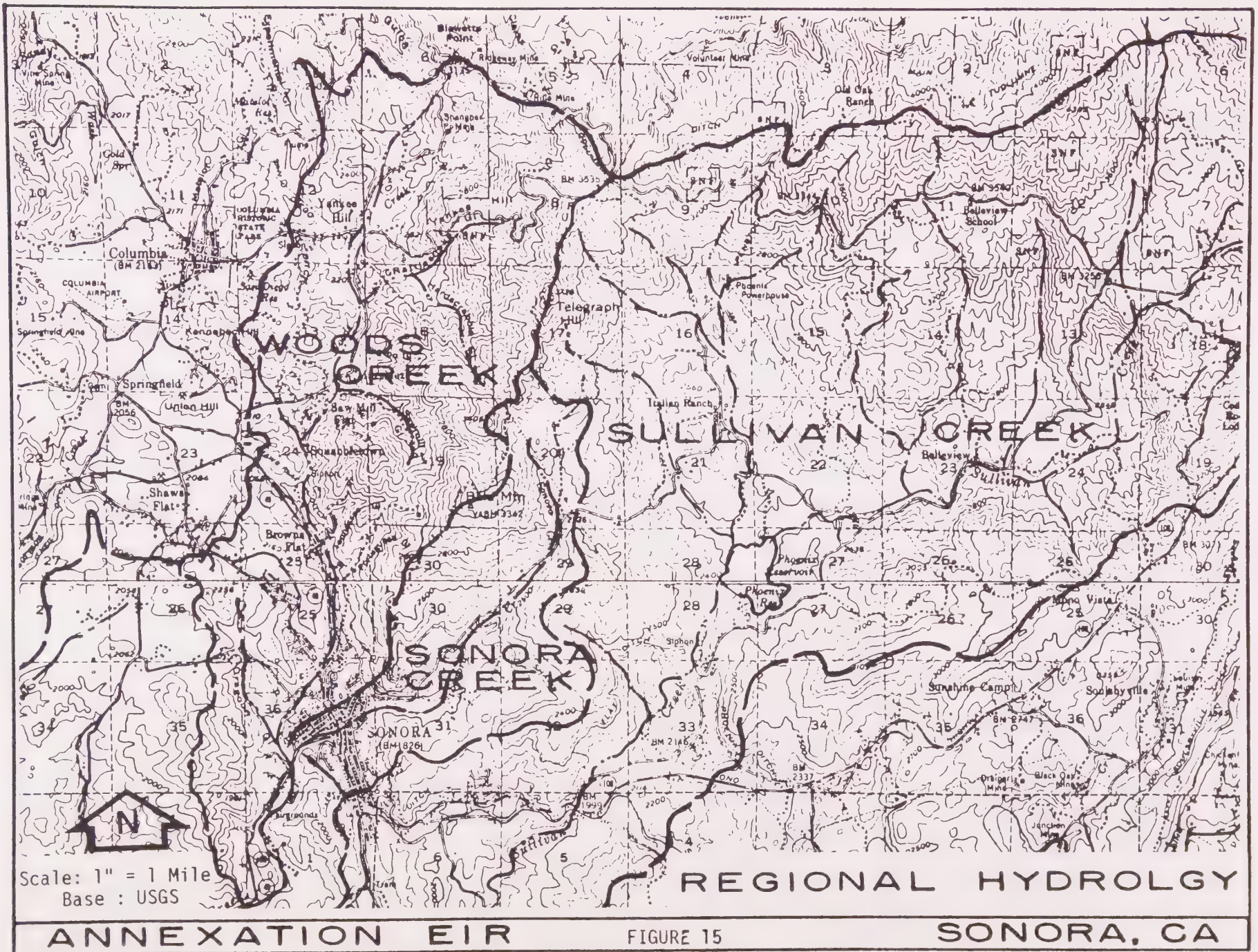
The existence of Woods and Sonora Creeks in the residential and commercial areas of the City present a threat for damage due to flooding. Historical data indicates that flooding has been of minimal concern.

Along Woods Creek, flooding has been limited to rare occasions of extended rainfall. In these events, flooding was limited to localized areas within established flood plains. The primary problems along the creek are with structures in the flood plain, as opposed to the channel's capacity.

No extensive flooding conditions have been reported along Sonora Creek. The largely undeveloped area of the upper portion of the drainage basin has resulted in flows well within the capacity of the channel. Occurrences of flooding have been localized within established flood plain areas.

Long term development within the drainage basins could result in increased flood potential, particularly along Sonora Creek. Further, channelization activities in the downtown area,

*Draft Annexation EIR, pp. 68-76.



as they relate to definition of the creek's boundaries via walls, tunnels, bridges, etc., restrict flows so that in the event of downstream obstruction, debris could be trapped thus impeding water flow and leading to extensive flooding.

The City of Sonora has participated in the National Flood Insurance Program since February, 1976. In gaining acceptance to the program, the City provided for certain flood plain management measures which are implemented separately from, but in support of, the general plan.

3. Ground Water*

Ground water use in the planning area is generally devoted to domestic water supply and agriculture. The limited information available would indicate that reliance on ground water resources has not been encouraged to a high degree, even though many County water companies and districts use wells as the primary, or only, source of supply. Geologic and hydrologic factors are locally favorable for ground water production from bedrock formations. However, since fractures in the rock, which are difficult to detect without drilling, provide the main ground water reservoirs, every hole drilled cannot be expected to be a successful well, and there could be wide variations in the quantity and quality of water encountered.

4. Water Quality**

Tuolumne County is part of Basin 5C of District 5 as established by the California Regional Water Quality Control Board. Within that district a regional plan has been formulated which provides for upgrading of all waters to the level that maximum recreational, economic, and aesthetic benefits may be derived. The Tuolumne County emphasis of the plan is the elimination of all significant point sources (i.e. industrial, sewage, etc.) and erosion control.

Primary uses for surface waters generally include body contact for recreational purposes, irrigation, aesthetics, and to a limited extent, for domestic consumption. The maintenance of uncontaminated water quality conditions is therefore of primary importance. Principal contaminants consist of sedimentation, urban storm water runoff, and occasional overflows from the regional treatment plant.

On the average annual basis, water within Woods, Sonora and Sullivan Creeks is considered to be relatively clean. The primary problem is sedimentation. Inadequate erosion control in conjunction with development projects results in major deposits of sediment material in the various streams. The sediment in

*Raymond Vail and Associates, Tuolumne County Water Study - 1977, (Sonora, CA., 1977), pp. 27-32.

**Draft Annexation EIR, pp. 76-82.

turn is affecting wildlife conditions within the riparian community and reducing capacity in creek channels, culverts, and other similar facilities. It is estimated that during an average winter storm, about 10 tons of sediments are deposited in the creeks within the Sonora area. Visual observations indicate that it occurs in significant quantities in almost every stream channel within the urban area. A second contributor to sedimentation, although on a lesser scale, is livestock grazing and pasturage. In many locations of the County, soils and vegetation conditions are such that overgrazing can denude and disrupt the soil mantle to the extent that rapid and extensive soil erosion occurs.

The Sonora sewage collection and transmission system is operated by the Tuolumne Regional Water District, and is subject to extensive storm water infiltration. During periods of intensive storm activities, the sewers occasionally exceed capacity resulting in overflowing of manhole covers with direct discharge into the local streams. In addition, the excessive quantities of sewage created as a result of storm water infiltration can, on occasion, result in overflow at the treatment plant, thus resulting in inadequate filtration of the sewage.

The final feature of significance relative to water quality is as a result of urban storm water runoff contaminants. Urban areas typically generate significant levels of petroleum, distillates, rubber, asbestos, nitrates, potassium, and fecal coliform which are the result of transportation activities, air quality contamination deposits, landscaping, pets and other domestic animals, and faulty septic systems. Those water quality contaminants are collected in the streets and on private property and are subsequently transported in concentrated solutions as a part of storm water runoff.

E. Wildlife and Wildlife Habitat*

The City is located in the upper Sonoran Life Zone (Foothill/Digger Pine/Chaparral Belt) of the west slope Sierra Nevada. Major plant communities within the city limits consist of 1) open grassland, 2) oak woodland/Digger pine/chaparral, 3) riparian drainage, and 4) streamside riparian. Animal diversity within the city limits is quite significant because of the above diverse plant communities which offer food, cover, roosting and nesting sites, and water. However, the diverse plants and animals located in the City are quite typical of those found in the Upper Sonoran Life Zone of the Sierra.

*This section presents a summary of a report prepared by Ross A. Carkeet, Jr., in May 1981 for the General Plan update project. The entire report is on file with the data base to the general plan at the City Planning Department.

Of the four major plant communities, the oak woodland/Digger pine/chaparral comprises the largest area. This large community consists primarily of an overstory of interior live oak, and Digger pine, and commonly an understory of mariposa manzanita, toyon, buckbrush, and poison oak. Less commonly, blue oak, black oak, valley oak, and scattered ponderosa pine serve as an overstory species within this community. Poison oak is the most widely distributed shrub in the City of Sonora as well as California. The abundant oaks, scattered grassland, and berry/seed producing shrubs provide food and cover for numerous rodents and birds, and scattered chaparral species such as buckbrush and mountain mahogany support the resident deer and provide escape cover for quail populations. Most of this acreage is located near the City limits boundary in the western, southern, and eastern portion.

Approximately 83 acres of undeveloped land within the City comprises the grassland plant community. These open areas are covered with a mixture of annual grasses, with soft chess, wild oats, and foxtail the most commonly distributed.

Streamside riparian plant communities were identified within the City where stream courses are perennial. This community includes Sonora Creek, Woods Creek and Dragoon Gulch. The drainage supplying Sonora Creek near Greenley Road obtains water throughout the year from the Sonora reservoir ditch system (PG&E) and so is regarded as perennial. The streamside riparian portions of the riparian drainage communities offer succulents such as watercress, spearment, lemon balm, willow, sedge, rush, blackberry, and wild grape which are important food sources for deer, numerous rodents, and some birds.

Six seasonal riparian drainage areas were identified in the field as capable of providing significant drainage flow until late spring-early summer in normal precipitation years. As a consequence, scattered riparian plants such as willow, blackberry, and California wild grape were found along the drainage areas. Valley canyon and canyon live oaks were more common in these areas because of higher water tables and more shade.

The streamside riparian and riparian drainages serve as "life support systems" for wildlife who reside in the adjacent oak woodland/Digger pine/chaparral plant community. The perennial streams within Sonora provide viable fisheries habitat for bluegill, smallmouth blackbass, minnows, and small populations of rainbow trout. Rainbow trout were commonly stocked and fished from Woods Creek near the high school in the early 1960's.

Table 5 on page 58 provides a listing of vegetation found within the city. Table 6 on page 59 provides a listing of wildlife.

TABLE 5

VEGETATION INVENTORY

TREES

Digger pine	black locust
ponderosa pine	walnut
valley oak*	pistachia
interior live oak	lombardy poplar*
blue oak	Fremont cottonwood*
California black oak	willow*
canyon live oak	white alder*
California buckeye	brown dogwood*
tree-of-heaven	

SHRUBS AND VINES

buck brush	mariposa manzanita
poison oak	mountain mahogany
western clematis	golden fleece
mock orange	yerba santa
California wild rose	scotch broom
toyon	California blackberry*
red berry	California wild grape*
coffeeberry	western azalea*
redbud	cherry
snowberry	coyote bush
chaparral honeysuckle	common manzanita
bush penstemon	

FERNS

gold fern
licorice fern
wood fern
brittle fern*

GRASSES

timothy	blue wild-rye
wild oat	Italian ryegrass
foxtail	pine bluegrass
soft chess	

OTHER PLANTS

horsetail*	fiddleneck	little-leaf lotus
sedge*	popcorn flower	Mariposa lily
rush*	chinese houses	horehound
lemon balm*	sow thistle	blue dicks
watercress*	mule ears	deadly nightshade
leather root*	California poppy	sweet fennel
spearmint*	tomcat clover	woolly sunflower
mugwort*	fairy lanterns	everlasting pea
red columbine*	shooting star	checker bloom
bleeding heart*	yellow star tulip	Indian paintbrush
common monkeyflower*	smallflower nemophila	poison hemlock
scarlet monkeyflower*	woodland star	twining brodiaea
white hyacinth brodiaea	dwarf gilia	wild cucumber
wally baskets	globe gilia	scarlet pimpernel
dock	bur clover	cinquefoil
miner's lettuce	tarweed	owl's clover
larkspur	chickweed	filaree
buttercup	bedstraw	pineapple weed
cinquefoil	Sonora morning glory	hound's tongue
lupine	purple milkweed	
red clover	dandelion	
vetch	cow clover	
wild geranium	plantain	
St. John's wort	vinegar weed	
yellow violet	broadleaf plantain	
soap plant	aster	
shrub pea	iris	

* - denotes riparian species or riparian location

TABLE 6
WILDLIFE INVENTORY

MAMMALS

mountain coyote
wildcat
gray fox
mule deer
raccoon
ground squirrel
western gray squirrel
brush rabbit
black-tailed jackrabbit

BIRDS

California thrasher
canyon wren
robin
California quail
scrub jay
hermit thrush
Oregon junco
brown towhee
white-crowned sparrow
band-tailed pigeon
turkey vulture
acorn woodpecker

striped skunk
long-tailed weasel
Botta's pocket gopher
mole
wood rat
porcupine
Virginia opossum
field mice

great-horned owl
barn owl
screech owl
anna hummingbird
wrentit
plain titmouse
bushtit
rufous-sided towhee
red-breasted sapsucker
white-breasted nuthatch
red-tailed hawk
red-shafted flicker

REPTILES

western pond turtle
common garter snake
gopher snake
common kingsnake
western rattlesnake

horned lizard
alligator lizard
western fence lizard
western aquatic garter snake

AMPHIBIANS

Pacific treefrog
yellow-legged frog
bullfrog
western toad
California newt
arboreal salamander

FISHES

smallmouth blackbass
bluegill
rainbow trout
minnows

AQUATIC INSECTS

water striders
water boatmen
backswimmers
caddis flies

The diversity of plant communities in Sonora provides suitable habitat to support a number of interrelated wildlife chains. These food chains in turn comprise a significant food web of wildlife for Sonora, as illustrated in Table 7 on page 61, "General Wildlife Food Web/Primary Food Chains".

None of the endangered and/or rare plant species for Tuolumne County listed by the California Native Plant Society's publication "Inventory of Rare and Endangered Vascular Plants of California" or listed by the Department of Fish and Game's "List of Designated Endangered or Rare Plants of California" was observed within the Sonora city limits, or are they known to exist there. A six acre patch of the rare El Dorado manzanita is located one-fourth mile west of the SE corner of Section 36, T.2N, R.14E, MDB&M. This location is one-fourth mile west of the Sonora city limits near the southwest portion of the City. This species of manzanita is classified as "rare" but not "endangered" by the California Native Plant society. The species was not observed within the Sonora city limits during field work.

None of the endangered and/or rare fauna listed in the "Federal Register of Endangered and Threatened Wildlife and Plants", and the California Department of Fish and Game's "Endangered, Rare, and Threatened Animals of California" are known to inhabit the City. The 1974 State Fish and Game Report on California's endangered and rare fish and wildlife, "At the Crossroads" was also consulted.

F. Fisheries

The perennial streams within Sonora provide viable fisheries habitat for bluegill, smallmouth bass, minnows, and small populations of rainbow trout.* The Department of Fish and Game considers the lower portions of Woods and Sullivan Creeks (outside of the planning area) to be important spawning areas for small and largemouth bass migrating out of Don Pedro Reservoir. No species of fish found within the streams are listed as rare or endangered. Local implementation programs to conserve streamside riparian and riparian drainage habitats, combined with efforts by the Department of Fish and Game, will serve to improve the fisheries habitat in the area.

G. Unique Environmental Features/Sensitive Areas**

Streamside riparian and riparian drainage plant communities must be regarded as unique and sensitive areas in Sonora as they provide diverse habitat for many plant and animal species. In many cases these communities serve as a limiting factor for growth and survival of riparian plants and fauna associated by food chain relationships with riparian plant species.

*Ross A. Carkeet, Jr., May 1981.

**Ross A. Carkeet, Jr., May 1981.

TABLE 7
GENERAL WILDLIFE FOOD WEB/PRIMARY FOOD CHAINS
CITY OF SONORA UNDEVELOPED AREA WILDLIFE HABITAT

UPPER LEVEL CONSUMERS (CARNIVORES)

PRINCIPLE DIET*

Mountain Coyote	A,B,C,
Gray Fox	B,C,F,G
Wildcat	B,C,E,F,G,H
Red-tailed Hawk	B,C,G,H
Great Horned Owl	B,C,E,F,G,H
Barn Owl	G

LOWER LEVEL CONSUMERS (Herbivores and Carnivores)

A. Deer	1,2,3
B. Brush Rabbit; Black-tailed Jackrabbit	1,3,5
C. Western Gray Squirrel; Ground Squirrel	2,4
D. Band-tailed Pigeon	2,6
E. Mourning Dove	5
F. California Quail	5
G. Field Mice; Wood Rats	5,6,7
H. <u>Other Birds</u>	
Sparrows	5
Towhees	5
Robin	6
Woodpecker	7
I. Fishes (trout, bluegill, bass)	7

SCAVENGERS

Turkey Vulture	(all carrion from above)
----------------	--------------------------

PRODUCERS (Vegetation and Insects)

1. Riparian succulents (watercress, mint, rush, etc.)
2. Oaks (acorns)
3. Buckbrush/Mountain Mahogany/Red Berry (young sprouts)
4. pine nuts (Digger Pine, Ponderosa Pine)
5. grass sprouts and seeds; herb sprouts and seeds
6. toyon berries/blackberry/manzanita berries/coffeeberry/red berry
7. insects

* - Diet symbols are keyed to lower level consumers (herbivores and carnivores) and producers (vegetation and insects).

The streamside riparian belt located along Sonora Creek immediately south of Lyons Street for approximately 1,200 feet is a particularly unique area since numerous plants were introduced into this area by Miss Mary Long during her tenure as biology instructor at Sonora Union High School from the 1930's to 1960's. As an early property owner in this area, Miss Long introduced, as one example, western azalea (Rhododendron occidentale), which is normally found above 3,500 feet in the Sierra.

Bedrock mortars were observed in three locations along Sonora Creek between Greenley Road and south of Lyons Street.

Finally, the crude foot trail from Sonora Elementary School to the old Sonora Elementary School is unique in that it connects two developed areas (East Sonora and downtown Sonora) through a large area of undeveloped land.

H. Historical

The history of the Sonora vicinity is extremely rich and relates primarily to the Gold Rush period. The earliest recorded activity is believed to have occurred in mid-1848 when gold was discovered on Woods Creek at a location just south of Jamestown. Following this initial discovery, an influx of European immigrants occurred, and gold was discovered in Sonora and the surrounding region. Tuolumne County is generally regarded as the southern limit of the Sierra Mother Lode area. The miners who came to the area were followed by various merchants and entrepreneurs, and by the 1860's Sonora was recognized as the commercial center of the area, a position which it still holds today. In the intervening years, the gold industry has declined and has been replaced by timber production, agriculture, recreation, tourism, and recently, construction. Historic resources from the gold rush period include old mines, equipment, structures, and stores where historic events occurred. The history of the Mother Lode area combined with the "charm" of the older towns and places provides major attraction for tourism and recreational activities. The visitors attracted to the area facilities provide significant contribution to the local economy.*

The open space element of a general plan typically includes an inventory and analysis of historic and cultural resources, including archaeological sites and historically and architecturally significant structures, sites, and districts. The City has chosen to prepare an optional Historic Preservation Element, which addresses these concerns. The purpose of the element is to give recognition to historic and cultural resources, and to make plan proposals for ways that such sites may be protected and preserved.

*Draft Annexation EIR, p. 98.

I. Open Space Lands

Open Space, as used in this element, serves to address several functions important to the City. Open space areas, when purposely set aside or planned for, can assure the continued availability of land for recreational use, for scenic qualities enhancing the rural character, or for conservation of sensitive wildlife habitats. The State Legislature, in requiring the preparation of an open space element to the general plan, was quite clear in its intent when stating that "open space land is a limited resource which must be conserved wherever possible".*

Open space land is any parcel or area of land or water which is essentially unimproved and devoted to open space use. In order to provide a framework for identification of open space lands, a classification system should be used based upon the open space use definitions contained in California Government Code Section 65560(b). The framework is as follows:

Open Space for the Preservation of Natural Resources

This category may include areas required for plant or animal life preservation; areas required for ecological or other scientific purposes; streams and streamside habitat; and watershed lands.

Open Space for Managed Resource Production

Included here could be rangeland; agricultural lands; streams important for management of commercial fisheries; and areas of mineral deposits.

Open Space for Outdoor Recreation

This category may include areas of outstanding scenic, historic, and cultural value; areas particularly suited for park and recreation purposes, including access to streams; and areas which serve as links between major recreation and open space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.

*California Government Code, Section 65562(a).

Open Space for Public Health and Safety

Included here could be special management areas because of hazards present such as fault zones, flood plain, unstable soils, or high fire risk.

PLANNING AREA ISSUES AND CONCERNS

1. Although air quality is generally excellent in the planning area, the carbon monoxide buildup in the downtown area is of significant concern.
2. Limited information exists on regional and subregional hydrologic conditions in the planning area. As such, long term impacts due to development in the area's major drainage basins, particularly Sonora Creek, are undefined.
3. While water quality for area's surface and ground waters is good, long term growth and development could lead to a degradation of this quality.
4. As the City continues to grow and develop, significant proportions of the populations of the larger mammal species and birds listed in Tables 5 and 6 will be eliminated.
5. Piece-meal elimination of plant cover and wildlife habitat due to development will also contribute to wildlife reduction.
6. The designation of open space lands is important for preservation of local scenic qualities, conservation of wildlife habitat, and for recreational use.
7. Increased use and harvesting of oak woodland resources as commercial species could have a detrimental impact upon the rural character of the area.

GOAL STATEMENT

The following goal is established for guidance of efforts to implement the Sonora General Plan Conservation/Open Space Element:

"To assure the wise use and development of the City's natural resources and open space lands."

POLICIES AND IMPLEMENTATION MEASURES

The following policies are established to provide guidance and commitment toward attainment of the stated goal. The implementation measures following each policy are actions intended to carry out the policy.

POLICY: Reduce vehicular congestion in downtown Sonora in order to avoid future adverse air quality conditions.

IMPLEMENTATION: Continue City support for State construction of the Sonora Bypass until the project is completed. This is the first priority in the reduction of existing and future air quality conditions.

IMPLEMENTATION: Continue City support for the Greenley Road Extension east of the City. This is the second priority in attainment of improved air quality.

IMPLEMENTATION: Support other regional and local circulation improvements for the improvement of air quality in downtown Sonora.

POLICY: Make appropriate consideration of hydrologic conditions in the planning area.

IMPLEMENTATION: As a long term program, a master drainage plan should be prepared for the City of Sonora and environs. Such a plan will allow the City to make long term commitments to a comprehensive regional drainage system.

POLICY: Reduce the scope of urban storm water runoff contaminants.

IMPLEMENTATION: The City should analyze its ability to provide frequent streetsweeping as a means to effectively reduce this form of contaminant to local surface waters.

IMPLEMENTATION: For projects exhibiting short and long term erosion and sedimentation impacts, require the preparation, adoption, and

implementation of an Erosion and Sedimentation Control Plan designed in accordance with the procedures and recommendations contained in the document Erosion and Sediment Control Guidelines for Developing Areas of the Sierra Foothills and Mountains.

POLICY: Encourage the use of open space for the public in a manner not intruding upon private property rights.

POLICY: Insure proper evaluation of natural environment concerns through the environmental review process.

IMPLEMENTATION: The City of Sonora has adopted local guidelines for the preparation and review of environmental impact reports (EIR) prepared pursuant to the California Environmental Quality Act (CEQA). The City Planning Department shall periodically review these local guidelines for the purpose of revision and update so that environmental review may be facilitated. In so doing, identified environmental concerns will be fully evaluated.

POLICY: Consider expanded use of the Design Review/Historic Zone zoning ordinance designation.

IMPLEMENTATION: Chapter 17.32 of the Sonora Municipal Code discusses the Design Review/Historic Zone. Its purpose is "to preserve the buildings and character of those areas of the City which are either historic in nature or close to historic structures". The zone acts as a combining zone with a base zoning district. Upon completion of the Historic Preservation element of the Sonora General Plan, the City should evaluate areas to which this zone could be applied for the express purpose of preservation/stabilization of older neighborhoods.

POLICY: Preserve streamside riparian and riparian drainage plant communities.

IMPLEMENTATION: Streamside buffer strips of 50 feet on both sides of center of Sonora Creek, Woods Creek, and Dragoon Gulch are to be delineated on the Open Space Lands Map. No residential, commercial, industrial, or institutional structure or facilities shall be allowed in such a designated area unless conditional use permit provisions are satisfied. In such instances, density and intensity shall be those which have been designated on the General Plan Land Use Map.

IMPLEMENTATION: Riparian drainage buffer strips of 25 feet on both sides of center of identified riparian drainages are to be delineated on the Open Space Lands Map. No residential, commercial, industrial, or institutional structure or facilities shall be allowed in such a designated area unless conditional use permit provisions are satisfied. In such instances, density and intensity shall be those which have been designated on the General Plan Land Use Map.

IMPLEMENTATION: Appropriate amendment to Title 17 (Zoning) of the Sonora Municipal Code to provide the mechanism for setbacks of the above described buffer strips associated within new developments.

IMPLEMENTATION: Where possible, streamside scenic easements will be acquired along Sonora Creek, Woods Creek, and Dragoon Gulch for their protection, and possible future use and enjoyment by the public.

Within implementation of the measures relating to the buffer strips, any rehabilitation or reconstruction of uses existing prior to adoption of the Plan shall be exempt from the conditional use permit requirements.

POLICY: All land use decisions shall make consideration of the lands identified on the Open Space Lands Map.








IMPLEMENTATION: The Open Space Lands Map is illustrated on page 69. As a base, the city limits as of June 1983 are shown. The oak woodland/Digger pine/chapparal, and the open grassland plant communities which comprise most of the City's open lands are mapped. The buffer strips for the riparian and riparian drainage plant communities are mapped, and will provide an important measure to protect these sensitive wildlife habitats. Existing parks that have been identified include Rotary Park, Coffill Park, and Courthouse Square. Although a specific location has not been determined, a proposed park is shown in the Greenley Road/East Sonora area. Other public open space includes schools, cemeteries, and the fairgrounds. These are open space lands with limited access, and which may not always be associated with open space.

POLICY: Future development on lands identified as riparian or riparian drainage on the Open Space Lands Map shall be done in a manner to minimize grading and topographical alteration, and maximize preservation of wildlife habitat.

POLICY:

Encourage future development on open space lands to "cluster" uses in order to minimize the extension of services, and maximize open space preserved.

OPEN SPACE LANDS MAP

-  OAK WOODLAND
-  GRASSLAND
-  EXISTING PARKS
-  PROPOSED PARK
-  OTHER OPEN
-  RIPARIAN BUFFER
-  RIPARIAN DRAINAGE BUFFER



NOISE ELEMENT

NOISE ELEMENT

INTRODUCTION

Generally, noise is referred to as being unwanted sound. Whether it be generated by vehicular traffic, a stationary source, or even a barking dog, noise can be particularly disturbing when infringing upon one's surroundings. California's cities and counties are required to address the concerns of the "noise environment" through a noise element of the general plan. The California Office of Noise Control has established four fundamental goals of a noise element:

1. To provide sufficient information concerning the community noise environment so that noise may be effectively considered in the land use planning process. In so doing, the necessary groundwork will have been developed so that a community noise ordinance may be utilized to resolve noise complaint situations.
2. To develop strategies for abatement of excessive noise exposure situations involving implementation of cost effective mitigating measures in combination with rezoning as appropriate to avoid incompatible land uses.
3. To protect those existing regions of the study area whose noise environments are deemed acceptable and also those locations throughout the community deemed "noise sensitive".
4. To utilize the definition of the community noise environment, in the form of CNEL or Ldn noise contours as provided in the Noise Element for local compliance with the State Noise Insulation Standards. These standards require specified levels of outdoor to indoor noise reduction for new multifamily residential construction in areas where the outdoor noise exposure exceeds CNEL (or Ldn) 60 dB.*

Enacted by the State Legislature in 1971, California Government Code Section 65302(g) defines the noise element requirements as:

"A noise element, which shall recognize guidelines adopted by the Office of Noise Control pursuant to Section 46050.1 of the Health and Safety Code, and which

*Office of Noise Control, Guidelines for the Preparation and Contents of Noise Elements of the General Plan, (Berkeley, 1976), p. 1.

quantifies the community noise environment in terms of noise exposure contours for both near and long term levels of growth and traffic activity. Such noise exposure information shall become a guideline for use in development of the land use element to achieve noise compatible land use and also to provide baseline levels and noise source identification for local noise ordinance enforcement.

The sources of environmental noise considered in this analysis shall include, but are not limited to, the following:

- 1) Highways and freeways
- 2) Primary arterials and major local streets
- 3) Passenger and freight on-line railroad operations and ground rapid transit systems
- 4) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation
- 5) Local industrial plants, including, but not limited to, railroad classification yards
- 6) Other ground stationary sources identified by local agencies as contributing to the community noise environment."

According to the State of California General Plan Guidelines, the noise element is the most specific in content and method of preparation.* This is due in part to the stringent requirements set forth in the law. It is also because of the input that the noise element policies and proposals could have in land use distribution.

This Noise Element of the Sonora General Plan seeks to recognize the provisions as set forth in the Office of Noise Control's Guidelines for the Preparation and Contents of Noise Elements of the General Plan. By doing this, the social and economic impacts which could be accrued through excessive noise levels are addressed.

*California Governor's Office of Planning and Research, State of California General Plan Guidelines, (Sacramento, 1980), p. 124.

SUMMARY OF NOISE DATA BASE

A. Definitions

The noise element is not only the most specific element to prepare, it is probably the most technical. The following definitions* should prove to be helpful in understanding terms used throughout the element:

1. Decibel, dB - A unit for describing the amplitude of sound.
 2. A-Weighted Sound Level - The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. This network de-emphasizes the very low and very high frequency components of sound.
 3. L10 - The A-weighted sound level exceeded 10 percent of the sample time. Similarly L50, L90, etc.
 4. Equivalent Energy Level, Leq - The sound level corresponding to a steady state sound level containing the same total energy as a time varying signal over a given sample period. Leq is typically computed over 1, 8, and 24 hour sample periods.
 5. Community Noise Equivalent Level, CNEL - The average equivalent A-weighted sound level during a 24 hour day, obtained after addition of five decibels to sound levels in the evening from 7 P.M. to 10 P.M. and after addition of ten decibels to sound levels in the night before 7 A.M. and after 10 P.M.
 6. Ldn - The day/night average sound level. The average equivalent A-weighted sound level during a 24 hour day, obtained after addition of ten decibels to sound levels obtained in the night before 7 A.M. and after 10 P.M.
- NOTE: CNEL and Ldn represent daily levels of noise exposure averaged on an annual basis, while Leq represents the equivalent noise exposure for a shorter time period, typically one hour.
7. Ambient Noise Level - The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

*Noise Element Guidelines, pp. 3-4.

8. Intrusive Noise - That noise which intrudes over and above the existing ambient noise level at a given location.
9. Equal Noisiness Zones - Defined areas or regions of a community wherein the ambient noise levels are generally similar (within a range of 5dB). Typically, all sites within any given noise source will be of comparable proximity to major noise sources.

B. Sources of Noise in Sonora

Major noise sources include households, construction equipment, railroad, and vehicles. The discussion on household noise is limited in that the City can't control noise output from the home. Construction equipment is discussed since it can be controlled, although its transient nature makes it less of an intrusion. Railroad noise is a potential significant noise generator, however indications are that noise impacts due to railroad operations are insignificant. This leaves vehicular traffic noise as the dominant intruder to ambient noise levels.

1. Household Noise

The growth in population and rise in standards of living have resulted in more families having more appliances. The following table illustrates the noise level and weekly operating time of several appliances and tools used about the home.

The following table is used to illustrate that, on the average, the middle income person who spends most of the working day at home could be subjected to the above noise as much as 20 hours per week and the lower income person could be exposed to as much as 4.8 hours of noise from appliances.

TABLE 8

USE OF NONCONTROLLABLE NOISE-PRODUCING
APPLIANCES AND TOOLS IN TYPICAL HOUSEHOLDS

		Household #1*	Household #2**
	Average dB(A)***	Total Minutes ____per week____	Total Minutes ____per week____
Major Appliances			
Clothes Washer	64	315	210
Vacuum Cleaner	70	90	50
Clothes Dryer	57	210	-
Room Air Conditioner	58	(full-time, seasonal)	-
Dishwasher	65	472	-
Food Disposal	70	1	-
Households Appliances			
Food Mixer	69	10	15
Can Opener	69	2	-
Sewing Machine	72	15	15
Food Blender	76	3	-
Electric Shaver	64	14	-
Power Tools			
Saw, Drill, etc.	83	10	-
Mower	(Varies)	30	-
Edger	81	30	-
Trimmer	81	4	-

*Two adults, three children (1 pre-school, family income \$16,000.

**Two adults, family income \$8,000.

***Measurements taken three feet from source during household survey.

Source: Environmental Protection Agency, Bolt, Beranek and Newman, Inc., Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, (1971), p. 104.

2. Construction Noise

Because construction noises are transient, there has not been a concerted effort to reduce the noise levels of the equipment involved. As the City expands and as the older areas are renewed and rehabilitated, the noise from construction will be more noticeable. The following table lists the types and noise levels of equipment used during the different phases of construction.

TABLE 9

NOISIEST EQUIPMENT TYPES OPERATING
AT CONSTRUCTION SITES*

	Construction Type		
	<u>Domestic Housing</u>	<u>Office Buildings</u>	<u>Public Works</u>
Ground	Truck (91)	Truck (91)	Truck (91)
Clearing	Scraper (88)	Scraper (88)	Scraper (88)
Excavation	Rock Drill (98)	Rock Drill (98)	Rock Drill (98)
Foundations	Truck (91)	Truck (91)	Truck (91)
	Concrete	Concrete	Concrete
	Mixer (85)	Mixer (85)	Mixer (85)
	Pneumatic	Pneumatic	Pneumatic
Erection	Tool (85)	Tool (85)	Tool (85)
	Concrete	Derrick	Paver (89)
	Mixer (85)	Crane (88)	
	Pneumatic	Jack Hammer (88)	Scraper (88)
Finishing	Tool (85)		
	Rock Drill (98)	Rock Drill (98)	Truck (91)
	Truck (91)	Truck (91)	Paver (89)

*Numbers in parentheses represent typical dB(A) levels at 50 feet.

Source: Environmental Protection Agency, Bolt, Beranek and Newman, Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, (1971), p. 27.

3. Railroad Noise*

The Sierra Railroad's line passes through the southern portion of the City, crossing Lime Kiln Road near its intersection with Hospital Road, and passing in front of Tuolumne General Hospital as it winds its way eastward. Under normal operations, a train will make one round-trip to Louisiana-Pacific in Standard through Sonora daily, Monday through Friday. However, current economic conditions have reduced shipments from L-P.

The proximity of the hospital, as a noise sensitive facility, to the railroad line would normally be an indicator that careful considerations should be made regarding the noise environment. However, Sierra Railroad reports that they have received no complaints regarding noise, and for that reason have not performed any noise monitoring in the area. In fact, the trains, particularly when the steam engines are running, may provide a diversion for hospital patients, particularly long term care patients.

In conclusion, even though the potential for significant noise impacts exists, no implementation action is necessary until a problem presents itself.

4. Vehicular Noise

Noise generated by autos and trucks on State Highways is the principal contributor to local noise. The data compiled in determining noise contours utilizes the L10 noise metric, which, in areas of low traffic volume as defined by Caltrans, presents little difference from the Ldn noise metric.

The following Table illustrates the noise contours using the L10 metric for State Highway 49:

TABLE 10

DISTANCE FROM CENTER OF ROADWAY TO
60 dB CONTOUR (L10)

STATE HIGHWAY 49

	1973		1995	
	Distance in Feet		Distance in Feet	
	65dB	60dB	65dB	60dB
Southgate Drive to Washington	100'	220'	200'	350'
Washington Street to Columbia Y	60'	120'	100'	210'

Source: Caltrans, District 10, August 1982.

*Phil Rundle, Assistant General Manager, Sierra Railroad,
Personal Contact August 5, 1982.

Although L10 contour information for Highway 108 east of the Washington Street/Stockton Street intersection is not available, it is expected to be comparable to that of Highway 49 based upon average daily traffic figures, percentage of truck traffic, and building density.

Generally, Caltrans estimates that on low volume highways, the 65 dB (Ldn) contour will be reached 100 feet from the center of the highway, and the 60 dB (Ldn) contour will be at approximately 200 feet. This general standard would appear to be consistent with the 1973 L10 readings.

COMMUNITY NOISE EXPOSURE INVENTORY

A requirement of the noise element is to determine the number of persons, current and projected, exposed to various levels of noise. This inventory will estimate the number of persons residing within the 65 dB (L10) contour and the 60dB (L10) contour. The 60 dB contour is significant because residences should normally be excluded inside of the contour unless adequate noise insulation is provided.

By plotting the 65 and 60 dB figures for 1973 and 1995, estimates can be made for the number of persons exposed to these levels currently, and in the future.

	1973		1995	
	<u>65dB</u>	<u>60dB</u>	<u>65dB</u>	<u>60dB</u>
# of Households	50	75	100	150
# of Persons (@ 2.11/Household)	106	158	211	317

The above numbers are important in future planning efforts in order to protect City residents from excessive noise levels due to vehicular traffic.

PLANNING ISSUES AND CONCERNS

The following is the primary issue in adopting policies which implement the noise element:

- 1) Increased vehicular traffic generated by future development will contribute to vehicular traffic conditions occurring on the roadways. While there is potential for significant additional volumes occurring on the various roadways, it will not be sufficient to result in adverse impacts. For example, on Washington Street in the vicinity of Stockton Street, existing peak hour volumes are approximately 1,850 vehicles. A doubling of that traffic volume to 3,700 vehicles per hour would result in a 3dB(A) increase in noise level. While it would be physically impossible to increase traffic volumes to that extent, it should be noted that the

3dB(A) increase would not, in all probability, be perceived by the average individual. It is of further significance to note that, as part of the Caltrans Bypass EIR, it was projected that no significant change would occur with or without the Bypass project. Computerized estimates prepared by Caltrans indicated that there would be less than a 2dB(A) deviation without regard to the alternative selected.

GOAL STATEMENT

The following goal is established for guidance of efforts to implement the Sonora General Plan Noise Element:

"To achieve a compatible community noise environment between residents, businesses, visitors and identified noise sources."

POLICIES AND IMPLEMENTATION MEASURES

The following policies are established to provide guidance and commitment toward attainment of the stated goal. The implementation measures following each policy are actions intended to carry out that policy.

POLICY: Reduce levels of noise created by construction equipment.

IMPLEMENTATION: All grading and other machinery associated with site development processes should be acoustically muffled in accordance with Caltrans Standard Specifications.

IMPLEMENTATION: On a project specific basis, construction start up time in the morning and ending time in the evening will be controlled so as to not disturb nearby residents.

POLICY: Establish standards for ambient community noise exposure.

IMPLEMENTATION: The Noise Element adopted in 1974 delineated specific standards for community noise exposure. Since that time, further studies by the Office of Noise Control have modified the ambient community noise exposure for land use classes. The standards on the following page are established as they related to the City's current zoning classifications.

ZONING
CLASSIFICATION

COMMUNITY NOISE EXPOSURE, Ldn OR CNEL, dB

	N.A.	C.A.	N.U.	C.U.
AR	to 60dB	60 - 70	70 - 75	75+
RE	to 60dB	60 - 70	70 - 75	75+
R-1	to 60dB	60 - 70	70 - 75	75+
R-2	to 60dB	60 - 70	70 - 75	75+
R-3	to 60dB	60 - 70	70 - 75	75+
CO	to 60dB	60 - 70	70 - 80	80+
C	to 70dB	70 - 75	75 - 80	80+
CG	to 70dB	70 - 75	75+	
ML	to 70dB	70 - 75	75+	

DEFINITIONS:

Normally Acceptable (N.A.) - Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable (C.A.) - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable (N.U.) - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made, and needed noise insulation features included in the design.

Clearly Unacceptable (C.U.) - New construction or development should not be undertaken.

SOURCE: Office of Noise Control, Guidelines for the Preparation and Contents of Noise Elements of the General Plan, 1976, p. 26.

SEISMIC SAFETY ELEMENT

SEISMIC SAFETY ELEMENT

INTRODUCTION

"Earthquakes are among the most terrible and devastating of all natural phenomena to affect the surface of the earth and so the lives of people. Earthquakes - and the name is accurately descriptive - are the result of a sudden release of stress in the earth's crust. If stress is thus released, fracture of the crust is inevitable."* Seismic activity is a major concern throughout the State of California, with revitalized concern evident in the Mother Lode subsequent to the Oroville earthquake in August 1975. This Seismic Safety element to the Sonora General Plan specifically addresses these concerns.

The Seismic Safety Element joined State statutes in 1971. California Government Code Section 65302(f) requires of all cities and counties:

"A Seismic Safety Element consisting of an identification and appraisal of seismic hazards such as susceptibility to surface ruptures from faulting, to ground shaking, to ground failures, or to effects of seismically induced waves such as tsunamis and seiches.

The Seismic Safety Element shall also include an appraisal of mudslides, landslides, and slope stability as necessary geologic hazards that must be considered simultaneously with other hazards such as possible surface ruptures from faulting, ground shaking, ground failures and seismically induced waves."

By addressing these requirements, the Seismic Safety Element of the Sonora General Plan will take seismic hazards into account within the City's on-going planning program. By its nature, the Seismic Safety Element extends its concerns into other general plan elements, including land use, conservation/open space, and safety.

*Robert F. Legget, Cities and Geology, New York: McGraw-Hill, Inc., 1973, p. 104.

SUMMARY OF SEISMIC DATA BASE

A. Seismicity

The Tuolumne County General Plan Revision Program entitled "MEIR Documentation" by Duncan & Jones, dated March 24, 1980, Appendix C, was used to formulate a data base for this element. The following is a summary of the above document and other documents as indicated.

The Melones fault zone, which is part of the Foothills fault zone, is located nearest to the City of Sonora of all known faults with signs showing activity within the past 20 million years (see Figure 2, page 6, Appendix C of the "MEIR Documentation").

In 1978, Woodward-Clyde Consultants indicated that the Rawhide fault (West and East) and Poorman Gulch faults along the Melones fault zone are considered potentially active. This would place a potentially active fault within 4 miles of Sonora per a memorandum from the Department of Conservation, Division of Mines and Geology, contained in the final E.I.R. Documents, Northern Annexation #1, Eastern Annexation #1 and Southwestern Annexation #1, Sonora, California, by Del Davis Associates, Inc. Consequently, the California Division of Mines and Geology (1979) believes that the entire zone is capable of generating a 6.5 maximum credible earthquake (Richter 6.5), representing the event which would generate the maximum ground shaking intensity. The severity and type of ground shaking and its impact on structures depends on several factors including:

- 1) magnitude of the earthquake;
- 2) distance from the causative fault;
- 3) duration of shaking;
- 4) the local soil/groundwater conditions;
- 5) the design of the building or structure; and
- 6) quality of materials and workmanship used during construction.

The modified Mercallie intensity in the epicentral region of the Melones fault zone from the maximum credible earthquake would be expected to be on the order of VIII or IX. This represents a moderate to major damage as is more particularly detailed in Table 4, page 29 of the "MEIR Documentation".

In addition to Ground Shaking, the following seismic hazards can occur as a result of a maximum credible earthquake;

- a) Surface rupture: The maximum surface fault displacement is variable but can be generally related to the earthquake magnitude and the total length of the fault system. Based on geological evidence in soils overlying faults, slips of 29 inches have been observed. However, it is thought that these are cumulative slips related to several

seismic events. Hence, the California Division of Mines and Geology (1979) has adopted a value of 9 inches to represent the most reasonable displacement from one seismic event of magnitude 6.5.

- b) Ground failure due to liquifaction is most likely to occur in water-saturated silts and fine sands having low in-situ density and in hydraulically-laced sand fills and loosely dumped fills. Liquefaction cannot be adequately addressed at this time because data on the soil conditions and depth of the groundwater table is lacking.
- c) Ground failure due to lateral displacement occurs in soft-saturated clays along the steep stream channel slopes, and where soils are thick and saturated. This potential hazard should be evaluated for the particular site.
- d) Differential settlements: Losses to medium-dense granular soils tend to compact during ground shaking, often resulting in significant settlements. Due to non-uniformity in density and confining conditions, and to irregular ground shaking during earthquakes, such settlement is generally non-uniform and may result in serious structural damage. Differential settlement may also occur as a result of earthquake-induced ground failures such as liquefaction, flow slides, surface ruptures, etc. Generally, differential settlements due to such conditions would be much more severe than those due to compaction alone. Since only general information regarding soil thickness exists for the City, this potential hazard should be evaluated for individual sites.
- e) Earth lurches: During earthquakes, soft-saturated ground may be thrown into undulating waves that may or may not remain when the ground motion ceases. This is known as earth lurches. Stream banks, cliffs and artificial embankments are also subject to lurching motions. Unfortunately, the conditions conducive to earth lurching are not well understood, although stream banks within the City would most likely experience earth lurching in a major earthquake.

SUMMARY OF THE GEOLOGIC AND SOILS DATA BASES

A. Geology

The City of Sonora is located approximately two miles northwest of the historic Mother Lode belt of the Sierra foot-hills. The Mother Lode is a fault-bounded, northwest trending belt of deformed and mineralized rocks, extending from the vicinity of Georgetown, El Dorado County, to the vicinity of Mariposa, Mariposa County.*

Bedrock units are generally located at or very close to the ground surface in the vicinity of Sonora, as indicated by the abundance of displaced rock (float) and outcrops through the region. Bedrock immediately underlying the surface consists of geologically old, resistant metamorphic rocks and younger underlying granitic rocks.*

The geology in the vicinity of Sonora consists mainly of northwest trending (striking) metamorphic rocks which vertically slope (dip) steeply to the northeast.* For the purpose of this summary, the geology underlying this region has been divided into three categories:

1. Schistose rocks of both volcanic and sedimentary origin that range in age from Pre-Cretaceous to Carboniferous (136-345 million years). These metamorphic rocks are schists, amphibolite, gneiss and quartzite.** The schist unit is interbedded with marble and minor cemented waterworn pebbles and rock (conglomerate).* Schistose rock of a quartz muscovite schist runs in two wide bands parallel to and on both sides of Washington Street in a northwesterly direction and covering a majority of the City. To the west of the City, west of Dragoon Gulch, rock type is a green schist with bands of sericite schist. Amphibol crystal metatuff is indicated in the southwestern part of the City near the fairgrounds, Southgate area, and near the Regional Sewer Plant.**
2. Limestone: This unit is compressed of massive, fine-to-medium grained, jointed, hard limestone and marbleized limestone. These calcareous rocks are interbedded with much more resistant metamorphic rocks; the contacts have topographic expression in the form of narrow ravines or low steps. This unit is noted as blue gray marble in reference,* and is indicated as a narrow band

*Del Davis Associates, Inc., Draft Environmental Impact Report Northern Annexation #1, Eastern Annexation #1, Southwestern Annexation #1, Sonora, CA, (City of Sonora, 1980).

**U.S. Department of Agriculture, Soil Conservation Service, General Soil Map for Western Tuolumne County, (March 1967).

extending through the City in a north-south direction from the Shaws Flat Road, Highway 49, Washington Street and Lime Kiln Road. Washington Street and Lime Kiln Road are generally the westerly interface between the limestone and schist rock.* Outcrops of limestone can be seen along Stewart Street, Shepherd Street, Lime Kiln Road, Shaws Flat Road and Highway 49.

3. Granitic is a broad classification that embraces several closely related types of igneous, intrusive rocks. The granitic units are deeply weathered, and except for widely separated clusters of rounded, comparatively fresh boulders, the material exposed at the surface is reddish-brown decomposed.* Granitic rocks are generally east of the City and east of Greenley Road.

The geology of Sonora is indicated by Figure 13 from the City's Annexation EIR, as shown on page 86.

B. Soils

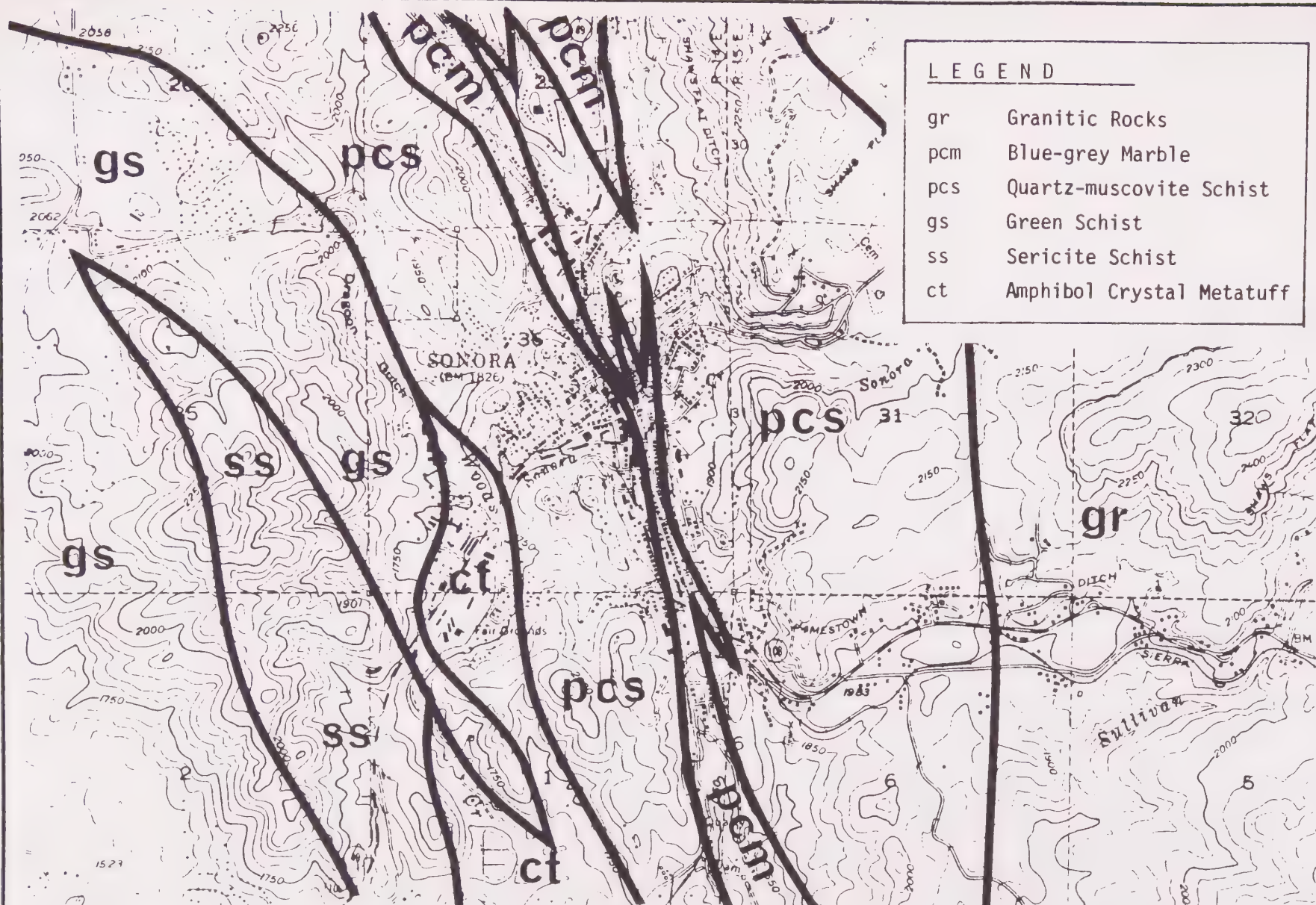
In the vicinity of Sonora, there are several soil types at various slopes, which are indicated by figure 14 from the City's Annexation EIR, on page 90. The following is a listing of these soil types and their general description.**

1. Rescue association, 3 to 15 percent slopes.
2. Rescue association, 15 to 30 percent slopes.

The soils in this association are developed on coarse-grained basic igneous rock. The soils are moderately deep to deep and well drained. Scattered rock outcrops occur throughout this association, generally on the knolls. These soils are easily eroded when the cover is disturbed as the erosion hazard is moderate on gentle slopes, to high on steep slopes. The rescue soils have reddish-brown, massive, medium and sandy loam surface soils with subsoils which are yellowish-red, blocky slightly acid sandy clay loams. Depth to weathered bedrock varies from 24 to 48 inches. Permeability is moderately slow.** These soils are indicated in the eastern portions of the City and to the east of the City.*

*Draft Annexation EIR.

**U.S. Department of Agriculture, SCS.



LEGEND

- gr Granitic Rocks
- pcm Blue-grey Marble
- pcs Quartz-muscovite Schist
- gs Green Schist
- ss Sericite Schist
- ct Amphibol Crystal Metatuff

FIGURE 13

GEOLOGY
SONORA, CA



ANNEXATION EIR

3. Rescue association, very rocky, 9 to 50 percent slopes.

The soils in this association are developed on coarse-grained basic igneous rock and are moderately deep to deep, and well drained. They are eroded and the erosion hazard is high. The rescue soils have reddish-brown, massive, medium acid, sandy loam surface soils. The sub-soils are yellowish-red, blocky, slightly acid sandy clay loams. Permeability is moderately slow. Depth to weathered bedrock varies from 24 to 48 inches.* This soil is indicated northeast of the City, presently outside of 1983 City limits.**

4. Mariposa-Josephine association rocky, 5 to 50 percent slope.

References indicate this soil type is not found in the planning area and therefore will not be summarized.

5. Josephine-mariposa association rock, 5 to 50 percent slope.

The soils in this association are developed on schists and slates. These soils are generally deep with scattered shallow areas. They are well drained and have a moderate to high erosion hazard. Rock outcrops are common with slate fragments common in the profiles. The Mariposa soils have brown, granular, medium acid, loam surface soils. The subsoils are reddish-yellow, massive, strongly acid loams. The permeability is moderate. Depth to bedrock varies from 15 to 30 inches.* The soil type is indicated north of the City and east of Highway 49 outside of the 1983 City limits.**

6. Rock Land and Tailings association.

These miscellaneous land types are very shallow and very rocky or cobbly mined areas. The runoff is generally very rapid.

Rock land is formed on hard limestone. Rock outcrops occupy more than 50 percent of the surface and there is seldom more than 10 inches of soil material between the rocks.

*U.S. Department of Agriculture, SCS.

**Draft Annexation EIR.

Tailings are mounds of gravels and cobbles with soil material between the gravels and cobbles that are left after hydraulic mine operations.* This soil type is indicated northwest of the City in the Shaws Flat area.

7. Tiger Creek - Permanente association, rocky, 5 to 30 percent slopes.

The soils in this association are developed on limestone. The soils are moderately deep and well drained. Rock outcrops are common, but scattered areas are rock free. The erosion hazard is moderate.

The Tiger Creek soils have reddish-brown, granular, neutral, loam surface soils. The subsoils are red, neutral, blocky clay loams. The permeability is moderate with the depth to bedrock varying from 24 to 36 inches.*

This soil type is indicated as a broad band running through the westerly side of the City in a northwesterly direction and covering a majority of the downtown area.**

8. Auburn-Sobrante association, rocky, 5 to 30 percent slopes.

The soils in this association are developed on metabasic and metasedimentary schists. They are shallow to moderately deep and well drained. Rock outcrops are common, but scattered areas are rock free. The erosion hazard for these soils is moderate and the permeability is moderate.

The Auburn soils have brown, slightly acid salt loam surface soils. The subsoils are reddish-brown, slightly acid, massive, silt loams. Depth to bedrock varies from 12 to 24 inches.

The Sobrante soils have reddish-brown, slightly acid, silt loam surface soils. The subsoils are yellowish-red, slightly acid, blocky clay loams. Depth to bedrock varies from 22 to 40 inches.* This soil is indicated on the easterly side of the City and south of the City.*

*U.S. Department of Agriculture, SCS.

**Draft Annexation EIR.

9. Auburn-Sobranite association, rocky, 30 to 50 percent slopes.

The soils in this association are developed on metabasic and metasedimentary rocks. They are shallow to moderately deep and well drained. Rock outcrops are common and the erosion hazard is high.

The Auburn soils have brown, slightly acid salt loam surface soils. The subsoils are reddish-brown, slightly acid, massive silt loams. The depth to bedrock varies from 12 to 24 inches.

The Sobranite soils have reddish-brown, slightly acid, silt loam surface soils. The subsoils are yellowish-red, slightly acid, blocky clay loams. Depth to bedrock varies from 22 to 40 inches.* This soil is indicated in the Southwestern portion of the City and southwesterly of the City. Generally, soils within the developed areas of the City are relatively shallow in depth with a moderate erosion hazard. High erosion hazard exists on slopes in excess of 30% especially in the Southgate area and southwest portions of the City.

Due to the shallow soil depth in most areas, sliding is of little concern except in specific areas of man-made fills and mine tailings.

*U.S. Department of agriculture, SCS.

- 1 Rescue Assn. (2-15%)
- 2 Rescue Assn. (15-30%)
- 3 Rescue Assn., Very Rocky (9-50%)
- 4 Mariposa-Josephine, Rocky (5-50%)
- 5 Josephine-Mariposa (5-50%)
- 6 Rock Land & Tailings
- 7 Tiger Ck.-Permanente Assn. (5-30%)
- 8 Auburn-Sobrante Assn. (5-30%)
- 9 Auburn-Sobrante Assn. (30-50%)

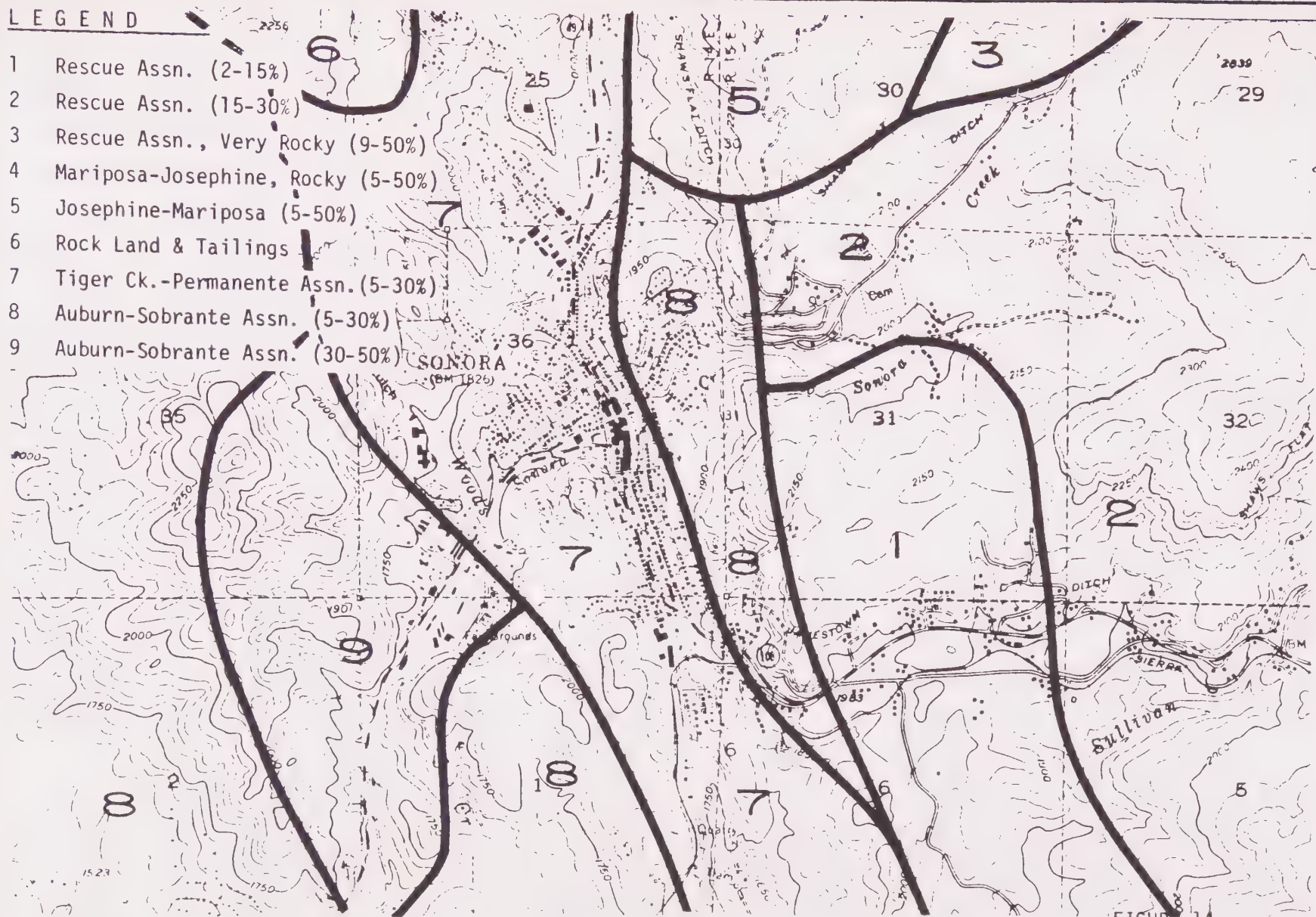


FIGURE 14 SOILS

MINERALS

The mineral resources, which have been the key to much of Sonora's history were caused by geologic events occurring over millions of years.

The oldest rocks in the Sonora vicinity, those of the Calaveras formation, were created by marine sedimentation during the Paleozoic Era. The mud and sand of an ancient inland sea were later changed to quartzite slate schist, chert, limestone and marble by the heat and pressure caused by later geologic events. These events included a long period of volcanism and faulting which resulted in the creation of the bedrock series of the Sierra Nevada containing the gold bearing quartz veins. Two hundred million years later the erosion of the Cretaceous period reached the quartz veins carrying the gold fragments into stream channels. Here, because of gold's high specific gravity, it collected in crevices of slate and schist creating pockets.

Another 80 million years passed when volcanoes again covered the area. Two obvious remnants of this era may be noticed around Sonora. First, stream channels were filled with volcanic ash which ultimately changed the drainage pattern to what we see today. Second, a molten flow of lava released by volcanic eruption in the Sierra filled a river canyon down to the Knight's Ferry area. Later the surrounding land eroded leaving the ancient river bed now known as Table Mountain.

Finally, during the late Pliocene or early Pleistocene period, the Sierra Nevada was reevaluated by faulting. This caused streams to accelerate cutting even deeper than the earlier Eocene river beds and so released much of the gold and gravels into recent stream courses.

The gold pockets created in the Cretaceous period and later eroded during modern geologic times were of particular importance to Sonora. The pocket belt, of which Sonora was part, had some of the richest places ever discovered.

An example of Sonora's pocket mines was the Bonanza mine located on Piety Hill near the Red Church. This strike was discovered by Chileans in 1851 and is the most famous pocket mine in the U.S. It was reported to have produced \$2,000,000 in gold by 1899.* In one week in 1879, 820 pounds of Bonanza gold worth \$189,000 were shipped in secret on the stage from Sonora to Milton. The stage was directed to skip its regular stop in Copperopolis to lower the risk of robbery. Stage drivers were forced to disregard these orders however, as the stage had to be braced to support the weight of the gold.

*C.E. Julehn and F.W. Horton, Mines of the Southern Mother Lode Region, Part II, Tuolumne and Mariposa Counties, (Washington, D.C.: U.S. Government Printing Office, 1940.

The gulches running from Piety or Gold Hill were very rich, especially those running south. One particularly rich vein ran down the center of present day Washington Street. Numerous mines were located on the Bonanza lead including the Hope, the Last Chance (Colby), the Cowen, the Dorsey, the Fairview, and the Tanzet Mines. Bonanza saloons, stores, restaurants, even babies were named to commemorate the wealth these mines produced.*

Other gold producers in the Sonora area were the Golden Gate, the Gerrymander Consolidated, the Stockton, and the Sugarman or Sophia mine on Bald Mountain. This mine was known for producing \$700,000 worth of beautifully crystalized gold.

Of the other minerals found in the Sonora area, limestone is the most noteworthy. Directly south of Sonora, a large commercial deposit of limestone is found in the slates and schists of the Calaveras formation. This deposit is nearly pure calcium carbonate and is used for calcining purposes.

APPRAISAL OF SEISMIC HAZARDS

1. Ground Shaking - A maximum credible earthquake on the Foothills fault zone with a Richter Magnitude of 6.5 could cause a ground shaking intensity of VIII to IX on the Modified Mercalli Scale (I to XII).

In practical terms, this represents a possibility of moderate to major damage to structures especially to unreinforced masonry and masonry of poor workmanship. Masonry designed to resist lateral force will receive little or no damage. Frame structures, if not properly bolted to foundations may be shifted off foundations or frames racked. Branches may be broken from trees and stucco may fall along with some masonry walls.

Under intensity IX, ground rupture could cause damage to underground pipes and conspicuous cracks may appear in the ground. Adobe masonry and masonry of poor workmanship would be destroyed.

2. Other Hazards - Due to the relatively thin soil, stable geologic conditions and drainage gradient of the City, ground failure due to liquification and earth lurches, are not considered a seismically induced hazard in the City. Ground failure due to lateral displacement and differential settlement may be seismically induced in localized areas where there are man-made fills on steep slopes, steep cuts into soil material and generally on earth slopes in excess of 30% slope.

*Julehn and Horton, 1940.

PLANNING ISSUES AND CONCERNS

The following are issues and concerns of the City of Sonora in adopting policies which implement the Seismic Safety Element:

- 1) The safety of persons on City streets, sidewalks, public buildings, commercial, and assembly buildings used by the public.
- 2) Property damage to public as well as private buildings and facilities.
- 3) The preservation of many older and historic buildings and structures which provide a historic character to the City of Sonora vs. strict adherence to earthquake resistant design. The many old stone masonry and rock walls within Sonora, many of which have stood over a hundred years, are contrary evidence to the seismic hazard indicated by the data base.
- 4) The economic effect of seismic design requirements for renovations of existing buildings and structures.

GOAL STATEMENT

The following goal is established for guidance of efforts to implement the Sonora General Plan Seismic Safety Element:

"To reasonably protect City residents from injury and property damage caused by earthquake, seismic related activity, and other geologic hazards."

POLICIES AND IMPLEMENTATION MEASURES

The following policies are established to provide guidance and commitment toward attainment of the stated goal. The implementation measures following each policy are actions intended to carry out that policy.

POLICY: Require that all new construction within the City conform to adopted building standards of earthquake resistant design.

IMPLEMENTATION: The City of Sonora adopts the latest addition of the Uniform Building Code on approximately three year intervals. Chapter 23, as well as other engineering regulations of the Uniform Building Code with regard to earthquake resistant design and construction, are enforced by the City of Sonora Building Department for all new construction.

POLICY: Insure a reasonable degree of public safety when considering repairs, alterations, or additions to existing buildings, yet provide for the preservation of buildings or structures which are economically or historically important to the City.

IMPLEMENTATION: Section 104 of the Uniform Building Code provides for the application of the building code to existing buildings and historical buildings which have been designated as having special historical or architectural significance. When public safety considerations are minimal, or where they can be reasonably resolved, the Building Official shall be encouraged to a liberal interpretation of the code in order to preserve economically or historically important buildings. Where application of the building code would destroy designated historical buildings, the alternative structural regulations of the State Historical Building Code may be used as a guideline.

POLICY: Insure proper evaluation of seismic concerns and geologic hazards on large development projects.

IMPLEMENTATION: The City of Sonora has adopted local guidelines for environmental review of projects pursuant to the California Environmental Quality Act. Where large development projects are proposed on slopes in excess of 30% and where appreciable grading is anticipated, seismic concerns and geologic hazards shall be evaluated through the environmental review process.

POLICY: Initiate an architectural trim inspection program to insure the safety of public sidewalks and streets in the event of an earthquake.

IMPLEMENTATION: The City Building Department will initiate such a program for structures within commercially designated zones. Where buildings have visably deteriorating exterior walls, parapets, overhangs, balconies or projecting signs, which could fall on public ways in the event of an earthquake, an inspection and evaluation of the strength of the appendage shall be made. Where hazards to public ways are identified, they shall be abated as provided for in the Uniform Building Code.

S A F E T Y E L E M E N T

SAFETY ELEMENT*

INTRODUCTION

This Safety Element is the final element of the Sonora General Plan concerned with environmental management issues. The health, safety, and general welfare of the community is perhaps the single most important function of local government decision-making. The General Plan Guidelines describes the safety element as a document which "aims at reducing death, injuries, damage to property, and the economic dislocation resulting from fire, geologic hazards, and other public safety hazards."**

California Government Code Section 65302(i) sets forth the element's requirements:

"A safety element for the protection of the community from fires and geologic hazards including features necessary for such protection as evacuation routes, peak load water supply requirements, minimum road widths, clearances around structures, and geologic hazard mapping in areas of known geologic hazards."

For the most part, the safety element is closely identified with the seismic safety element because of their common topic areas. In that geologic considerations have been made within the Seismic Safety Element, they will not be repeated here; this element primarily concerns itself with safety considerations due to fire hazards in the wildlands and developed areas of the City. Aspects of the safety element also contribute to the land use element (as it relates to type and density of uses in hazardous areas) and the circulation element (as it relates to various safety oriented standards).

*Technical assistance in the preparation of this element provided by Guy Mills, Chief, City of Sonora Fire Department.

**California Governor's Office of Planning and Research, State of California General Plan Guidelines (Sacramento, 1980) p. 124.

SUMMARY OF SAFETY DATA BASE

A. Fire Department Facilities

The variety of land uses, architectural styles, and materials of construction pose a significant potential for fires to occur in the City. Such a situation would present a challenge to any small city fire department. The City of Sonora Fire Department is responsible for all fire protection services within the City's boundaries. The Department is presently located on North Washington Street, south of Snell Street and adjacent to City Hall. The fire house has 2,300 square feet to house all of its equipment and supplies. According to the Fire Chief, in a report prepared in June 1979 for the Draft Annexation EIR*, "the location of the fire house does not lend itself to rapid response due to extremely heavy vehicle traffic" on Washington Street. Should a fire occur in the eastern portion of the City, a quick decision must be made by the engineer leaving the fire house whether response would be quicker turning right down Washington Street, or turning left up Washington Street, then right on to Elkin Street, and then proceeding south on Stewart Street.

It is anticipated that construction of the Sonora Bypass will eliminate some of the congestion, and that the proposed Greenley Road Extension will ease traffic on North Washington Street, thus improving response times. However, long term growth and development of the City would indicate that a second fire house will be needed in the future in order to continue to provide an adequate level of fire protection services.

B. Personnel

The Department is staffed by one paid chief, six paid fire fighters, and a volunteer force of 24 men. Three of the paid fire fighters have been recently added (August 1982) in order to maintain a good level of protection services. Training for all personnel is an on-going function of the Department, ranging from basic knowledge of the equipment to training in the fighting of special fires. Each year, the Department participates in training exercises at the Sierra Conservation Center. Burning nights during the summer offer added training opportunities. Training in wildland fire techniques is to be undertaken with the support and assistance of the California Department of Forestry at their Sonora Station.

C. Equipment

According to the Fire Chief, the Department has the following equipment assigned to it:

*Del Davis Associates, Inc., Draft Environmental Impact Report Northern Annexation #1, Eastern Annexation #1, and Southwestern Annexation #1 Sonora California, (City of Sonora, 1980), Appendix H.

- 1 pick-up
- 1 400 GPM 1953 GMC (Engine 2)
- 1 500 GPM 1937 White (Engine 3)
- 1 1000 GPM 1966 GMC (Engine 4)
- 1 1000 GPM 1974 Ford (Engine 5)
- 1 85 GPM 1973 Chevrolet (Quick Attack Engine)

Engine Two is classified by the Insurance Service Office (ISO) as a hose wagon due to limited pumping capacity. Engine Three is classed as 1/2 engine due to its age.

The ISO reviews a number of factors in determining the fire insurance rating for an area, including quality of operation, local building codes, planning standards and fire loss experience. These factors determine the "basic rate" or "class level" for the City. The rating system goes from a Class 10 (unprotected) to a Class 1 (most able to cope with a fire). The City of Sonora currently has a Class 6 rating. The Fire Chief has stated that the ISO will soon be re-evaluating the Department and the City to determine whether acceptable standards are being met. The ISO's evaluation could maintain the existing rating, or improve or decrease the rating.

D. Risk of Fire in Developed Areas

Risk is a hazard or exposure to loss or injury. The residential neighborhoods, commercial district, and sites for industry and high occupancy use each present differing types of problems and levels of risk. Potential fire hazards are addressed at a basic level through lot size and building setback requirements which vary according to land use. However, specific problems and associated risks can be identified in the developed areas:

- Residential - The City's residential areas pose a difficult problem for the Department. For the most part, suitable private fire protection for dwellings has not been developed so that they must rely mainly upon the Department for adequate fire protection. In general, the level of risk is decreased by 1) strengthening the Department and its services, and 2) development/expansion of a fire protection program. In the past a lack of manpower has been a problem in addressing the above points; however, the addition of three paid fire fighters in August 1982 will allow the Department to be strengthened, while allowing for regular fire prevention and education activity to be developed and implemented.

- Commercial - The commercial district presents fire hazards in many forms. In the downtown business district, the old buildings with old wiring and highly combustible materials of construction are of primary concern. Throughout the City, stores that sell or stock clothing, books, or other readily combustible wares are more susceptible to fire. Larger stores and warehouses involving readily combustible wares (Hales and Symons or J.S. West, as examples) present specific concerns. Risk can be reduced

through construction and rehabilitation which recognizes the fire hazard which exists. Perhaps the most important measure is "preplanning" by the Department - sizing up the potential for a fire in a particular facility now so that in the event of a fire a method of attack is already established.

- Industrial - Historically, problems due to industrial fire have been minimal due to the low number of industrial activities in the City. However, the Eastern Annexation added 4 bulk storage plants which present a major concern to the Department. The key here in reducing risk, as in the commercial areas, is in preplanning for a fire so that a plan of attack is established.

- High Occupancy - Large public and institutional building such as schools, hospitals, government offices, and libraries are special hazard areas in that a greater danger to life and larger values are involved. Fire resistive construction, especially in roofs, partitions, and wall finish, and also enclosed stairways, and fire walls, will retard the spread of fire. Building code requirements should be reviewed periodically to determine adequacy.

- Vacant Lots and Rights of Way - These areas, when overgrown with weeds, are a fire hazard, especially during the hot, dry summer season. Risk is addressed through the hazard reduction program carried out by the Department to burn or clear weeds on City rights of way. The Department will also clear or burn weeds in vacant lots which pose a significant hazard.

A further indication of the risk of fire in the City can be derived from historical data relating to Fire Department calls for assistance. The table on page 101 illustrates the number and types of calls the Department has responded to yearly, 1977 through 1981.

E. Risk of Fire in Wildland Areas

Although not extensive, the wildlands found within the City present unique problems for a fire department which has been traditionally oriented toward protection of developed areas. Most of the wildlands are located on the fringe area of the City limits to the west, south, and east. An exception to this is Knowles Hill, which is fairly centrally located. The problems associated with fires in these areas would include adequate access to hazardous areas, facilities and people near or adjacent to such areas, and fire hazard severity based on fuel loading, weather, and slope.

Not since the early 1960's has a wildfire posed a threat to the City. However, increased development into wildland areas points to a risk for significant impacts to occur through a major fire. For this reason, measures are currently underway to reduce this risk, including the addition of a quick attack fire engine to provide access into off-road areas, and increased training of

Department personnel in wildland fire fighting techniques. A fire prevention program will also serve to reduce threat of wildfire. Finally, appropriate measures taken in subdivision development near wildland areas will reduce the threat.

PLANNING ISSUES AND CONCERNS

The following are the issues and concerns of the City of Sonora in adopting policies which implement the Safety Element:

- 1) Many of the buildings in downtown Sonora present potential fire hazards due to age, construction materials, goods sold, and density.
- 2) There is an increasing potential for fire in the City's wildland areas due to development encroachment into these previously undeveloped lands.
- 3) As the City continues to develop there is an increasing need for fire prevention/education activities, particularly in the residential and commercial neighborhoods.
- 4) Circulation improvements, including the Sonora Bypass, Greenley Road Extension, and local City street system improvements are needed in order to facilitate quicker response times.
- 5) Over the long term, as the City develops, the addition of a second fire house will have to be analyzed in order to maintain an adequate level of fire protection services.

TABLE 11
CITY OF SONORA FIRE DEPARTMENT
CALLS FOR ASSISTANCE
1977 - 1981

YEAR	STRUCTURE MAJOR	STRUCTURE MINOR	FLUE	GRASS	VEHICLE	MUTUAL AID	OTHER	TOTAL FIRES	PUBLIC* SERVICE	FALSE ALARM	YEAR TOTALS
1977	4	10	2	8	20	3	9	56	52	29	137
1978	7	6	1	7	19	9	10	59	61	16	136
1979	5	3	2	10	19	6	7	52	41	21	114
1980	3	9	7	13	15	5	14	66	65	17	148
1981	2	11	2	9	19	5	10	58	53	24	135
5 YEAR TOTALS	21	39	14	47	92	28	50	291	272	107	670
FIRE CALLS								OTHER CALLS			

* - Public Service = Wash downs, smoke checks, standby, other.

SOURCE: CITY OF SONORA FIRE DEPARTMENT, JULY 1982

GOAL STATEMENT

The following goal is established for guidance of efforts to implement the Sonora General Plan Safety Element:

"To provide a living environment with adequate protection from the hazards of fire, and other public safety hazards."

POLICIES AND IMPLEMENTATION MEASURES

The following policies are established to provide guidance and commitment toward attainment of the stated goal. The implementation measures following each policy are actions intended to carry out that policy.

POLICY: Require that all new construction within the City complies with adopted fire standards.

IMPLEMENTATION: Chapter 15.12 of the Sonora Municipal Code discusses the City's fire code. Included is adoption by reference of the Uniform Fire Code and Appendices thereto. The purpose of the fire code is to make provisions for safety from the hazards of fire. Amendment to Chapter 15.12 will be made as necessary in order to ensure these provisions are maintained. Also, the City has adopted the Uniform Building Code, which also incorporates provisions for fire safe construction.

POLICY: Continue to provide fire prevention information through the schools, public interest groups, and other facilities.

IMPLEMENTATION: The Fire Department is currently actively involved with the schools during Fire Prevention Week. Throughout the year, the Department is available to civic and public interest groups for presentations. These types of activities are extremely beneficial, contributing to the fire safety within the City.

POLICY: Establish and expand fire prevention inspection activities.

IMPLEMENTATION: In the recent past, the Fire Department has provided limited inspection activities; the major constraining factor was due to lack of manpower to operate a full program. The addition of another shift of men will now allow for these activities to be established and developed over the long term.

POLICY: Continue with the present weed abatement program during the dry season.

IMPLEMENTATION: The City annually participates in weed abatement along City rights-of-way either through clearing or burning. The City will also clear or burn weeds in vacant lots which pose a significant fire hazard. There is a slight fee for this service. This annual program will continue.

POLICY: Analyze the need for a second fire house as development of the City occurs.

IMPLEMENTATION: Over the long term, the need for a second fire house will present itself to the City. The City, in anticipation of this need should schedule an analysis of possible fire house locations to determine land use and circulation conflicts, review location alternatives, and select the best location for the facility. Such an analysis should also account for future needs of the police department so that a combined fire/police facility may be considered, if necessary.

POLICY: Require the issuance of a permit for storage of hazardous substances from appropriate agencies.

HISTORIC PRESERVATION
ELEMENT

HISTORIC PRESERVATION ELEMENT

INTRODUCTION

The practice of comprehensive land use planning involves many areas of concern, and certainly isn't limited to areas which constitute the mandated elements. Depending upon the city or county, other locally relevant issues may be incorporated into the general plan as "optional elements". One such issue that the City of Sonora has decided to address as an optional element is historic preservation.

Historic preservation planning has gained widespread interest in California since the early 1970's. Indeed, with the cultural, economic, social, and land use benefits which can be accrued from historic preservation, many communities are developing comprehensive programs to develop awareness, and build support for preservation efforts. The State of California specifically provides for historic preservation as an optional general plan element within Government Code Section 65303(j), as follows:

"A historical preservation element for the identification, establishment, and protection of sites and structures of architectural, historical, archeological or cultural significance, including significant trees, hedgerows and other plant materials. The historical preservation element shall include a program which develops actions to be taken in accomplishing the policies set forth in this element."

Within preparation of this Historic Preservation Element specific guidelines prepared by the Office of Planning and Research* have been utilized. In recognizing the number of historic resources sited in the Sonora area, this element represents a significant step for incorporating preservation as an integral part of the comprehensive planning process.

*California Governor's Office of Planning and Research, Historic Preservation Element Guidelines, Sacramento, CA, 1976.

SUMMARY OF HISTORIC PRESERVATION DATA BASE

A. Goal Statements

At the outset, recognizing the unique nature of a historic preservation element, it is important to understand the goals toward which the element is oriented. The goals which have been established are:

"To recognize and retain the authentic cultural heritage of the City of Sonora."

"To provide for protection, preservation, and restoration of significant resources."

"To provide a positive atmosphere for business and visitor activity within a historic environment."

"To emphasize and promote the overall visual attractiveness of Sonora."

"To enhance individual neighborhoods and districts by providing an environment which encourages pride and identity."

B. Overview of Prehistory and History

The cultural history of the Sierra Nevada mountains spans some 10,000 years or more. There is increasing evidence of early cultural activity in the area associated with Paleoindian big game hunting traditions. The early use of the Sierra probably involved scattered, seasonal visits by small hunting parties following game into the higher elevations.

Intensive occupation of the central Sierra began 3000-4000 years ago, when people ancestral to the modern Yokuts spread outward from the Sacramento/San Joaquin River delta into the mid-central valley and adjacent Sierran piedmont. The mortuary caves along the Stanislaus River were probably used by these early Yokutsan people.

The Miwok people who occupied Tuolumne County at the time of historic contact arrived in the area about 700 years ago, expanding southward along the western slope from the area between the American and Calaveras Rivers. At contact, Miwok-speakers inhabited the entire western slope of the Sierra Nevada from the Cosumnes River on the north to the Fresno River on the south.

Miwok settlements included relatively permanent villages, usually located below the snow line, and special purpose camps located at elevations ranging from the lower foothills to the high Sierra. Villages were generally on the ridges rather than

in the river canyons. A small spring or stream, not the river, was the source of water for such a village. Principal prehistoric villages were known to exist along the bluffs of the Stanislaus River near Columbia and in the vicinity of Sonora.

The largest political unit was the tribelet, an independent, autonomous group which held a specific tract of land for use in common by all its members. The tribelet could consist of a single village, or a primary village with up to half a dozen subsidiary settlements. A tribelet took its name from the main village, where the chief and other community leaders resided. The communities of Kuluti and Akankau-nchi were located in the immediate vicinity of the present City of Sonora.

Miwok economy was based on the collection of plant foods. Acorns, supplemented by a variety of seeds, nuts, roots, and berries, formed the mainstay of the diet, while fish, deer, and other small game formed a quantitatively lesser portion of the diet. Many foods, taken in season, were preserved and stored for later use.

Miwok society was stratified, and the concept of rank was well-developed. Chiefs and their families comprised the social elite; religious and political bureaucrats, commoners, and poor people filled in the remaining ranks. Chieftainship was hereditary, and could be held by a man or woman.

Among the Miwok, all of nature and society was divided into two equal halves, called moieties, each of which was mystically joined with water or land elements of Miwok religion and which was related to a series of land or water animal totems. Membership in a moiety was hereditary, and was reckoned in the father's line. The Miwok believed that everything in the world belonged to one or the other half, and every Miwok person had a name, given in infancy, which associated him or her with a plant, animal, or object associated with his moiety.

Native life was disrupted by the advent of Euro-Americans in California. Even before the Gold Rush, the Miwok were affected by European diseases and Spanish and Mexican exploratory expeditions and military raids. Following the discovery of gold at Woods Creek below Jamestown in the summer of 1848, the Miwok in the region were rapidly displaced by Gold Rush immigrants. Some native individuals did engage in mining, both as laborers and independently, but most resisted the onslaught and were ultimately exterminated or driven from the area.

Sonora derives its name from gold-seeking inhabitants of the state of Sonora, Mexico, and the site of their original encampment, the Plaza, formed the nucleus of a settlement teeming with Argonauts from all over the world. Sonora became a cosmopolitan community which served as the gateway to the southern mining region and an important commercial center. An informal town council was organized in late 1849, followed by official incorporation in May 1851. The rough and tumble life

associated with a boom town such as Sonora continued throughout the 1850's, periodically interrupted by fires which swept through the town, destroying many of the hastily erected canvas and wooden buildings and giving rise to the use of stone and brick as fireproof building materials. Hotels, restaurants, stables, clothing stores, freighters, saloons, fandango halls and purveyors of feed, fuel and mining supplies were among the first businesses established along Washington Street. Many of the brick and stone firewalls separating these establishments remain today. The north wall of the City Hotel is an excellent example of an inspired use of indigenous materials by skilled masons in 1852. Sonora's rocky hillsides were quarried for the slate that builders used as supports for new streets, retaining walls and foundations, many of which remain today.

The county's first sawmill was established in Sonora in 1850 and by 1856, there were 24 mills in Tuolumne County supplying the needs of home construction, mining and commercial expansion. Pine cut and milled in Tuolumne County was used to build the first courthouse in 1853. Since that time, the activity associated with being the county seat has contributed to Sonora's vitality. As a crossroads, Sonora was an important stage stop and numerous hotels and restaurants catering to the traveling public were an important part of the business community.

Schools, churches, charitable and fraternal organizations and social groups were established in Sonora rather quickly and these institutions did much to bring a sense of permanence to the mining camp. The same can be said about the establishment of homes for a rapidly expanding resident population that at one time reached 10,000. Some of these structures, such as the Cady House, the Hall home, the Oliver home and others endure today in various stages of preservation. Many churches, business and government buildings and lodges in the heart of Sonora provide a link of the decades of the 1850's and 1860's: St. Patrick's Catholic Church, Yosemite House, St. James Episcopal Church, Odd Fellows Hall, Washington Hall, county jail, Serventes, the former Wells Fargo office and the Gunn House.

When gold mining activity began to decline and Sonora's population stabilized at a level below boom times, the town's importance as a commercial and financial center and host to travelers continued. The rich timber resources of the Sierra were increasingly tapped by logging companies and the county's biggest milling operation was centered on Hospital Street, later re-named Bradford Street in memory of the mill's owner, S.S. Bradford.

The years between 1885 and 1910 were characterized by the arrival of the Sierra Railroad and additional construction, notably Sonora's fine Victorian cottages, the Rehm house, the Opera Hall, Street-Morgan Mansion, the ornate Bradford-Rosasco home, the Tuolumne County Courthouse and Bromley's sanitarium. Many of the finest homes built during that era were constructed

along Washington Street; however, a goodly portion have been demolished to make way for motels, service stations and other buildings.

New construction in the public sector through 1910 was impressive, a new county hospital, the Sonora Grammar School, the Tuolumne County High School and a new city cemetery in the shadow of Bald Mountain. The town's dirt main street was paved in 1920 as automobile traffic became commonplace. Gradually, paving was extended throughout the business district and into the neighborhoods. Sonora's business leaders joined with other entrepreneurs and formed a countywide Chamber of Commerce in 1921.

The town's need for more residences continued and the styles echoed architecture popular elsewhere. Simpson Terrace subdivision began developing in 1922 in an area on the east edge of town that was formerly a truck garden tended by Italian families. Bigger buildings continued to be the trend in the business district and included the Davidson-Hammond Building, Sonora Memorial Hall, extensive remodeling of the Sonora Inn, and the Marengo Building, which replaced several buildings destroyed by a fire in 1929.

The depression of the 1930's and the war years brought difficult times to Sonora and the rest of the county, but the recovery saw a renewed dedication to progress and prosperity. Many merchants remodeled their store fronts by replacing historic iron shutters and brick fronts with large panes of glass and more up-to-date building materials. The timber industry and expanding government activity by the county and state and federal agencies continued to be the mainstay of the local economy supplemented by the city's role as the commercial center of Tuolumne County. The last vestige of wilder times, gambling, was shut down by state intervention in the 1950's, and several residential areas were annexed to the City during this time.

The lure of Sonora's historic past as a major gold rush settlement and this area's natural beauty has contributed to steadily increasing numbers of the traveling public and today tourism is a major factor in the City of Sonora's economic health. Sonora's rich legacy of historic buildings and other visual reminders of priceless cultural heritage are the heart of its appeal as a place in which to live and work and visit.

C. Archeological Overview

Archeology is the study of material remains left by past or present cultures. Indian artifacts, village sites and bedrock mortars, as well as historic buildings, structural remains, and trash dumps, are among the many cultural features studied by archeologists.

The City of Sonora has had little serious archeological study, although considerable research has been conducted in the New Melones Reservoir area, Columbia State Historic Park, and the Stanislaus National Forest. At least one recorded Native-American site is located within the city limits, and there is some evidence that as yet undiscovered Native-American remains are present. Such sites could include bedrock milling stations, occupation meddens, lithic scatters, and rock art sites.

Euro-American archeological sites are common in Sonora. A complex record of the town's history is known to exist just beneath the surface of today's streets, sidewalks, and back yards. In truth, the entire City should be considered one large site containing such features as buildings and structural remains, plantings, stone walls, dams, flumes, ditches, roads, and rail grades. Isolated mining machinery and other mining remains, as well as privies, trash dumps, and graves, can also be expected. All publicly owned archeological sites, Native- and Euro-American, should be protected from vandals, bottle hunters, and others who seek artifacts for their commercial or curiosity value.

Three structures in the City of Sonora, the Cady House, Tuolumne County Courthouse and the Tuolumne County Museum, are currently listed on the National Register of Historic Places, while the City Hotel and Opera Hall have been determined eligible for the register. Additionally, the St. James Episcopal Church is designated California Historical Landmark #139, while the California Inventory of Historic Resources (State Resources Agency 1976) listed the central area of Sonora as an historic district. That inventory listed several significant buildings and sites within the city limits. More recently, the Central Sierra Planning Council, in conjunction with the Tuolumne County Historical Society and the State Office of Historic Preservation, inventoried some 200 potentially historic buildings in the City.

It is important that the City of Sonora develop a comprehensive plan for managing the wealth of historic, archeological, and architectural resources it contains. Without such a plan, we will continue to lose that tangible link with history which gives Sonora its character and livelihood.

D. Economic Benefits of Preservation Planning*

While cultural benefits are crucial to any historic preservation program, the economic benefits make preservation planning more attractive. Some economic benefits are well known, specifically those related to tourism and the tourist industry which is an important component of the economies of many California cities. Recently, other economic benefits have surfaced with even wider appeal; these benefits can be summarized briefly under six headings:

*Adapted from California Governor's Office of Planning and Research, Historic Preservation Element Guidelines, (Sacramento, 1976), pp. 4-5.

- (1) Property Values - Rehabilitated and protected historic sites and districts acquire prestige and distinction; the property is more valuable and this fact is reflected in resale value, and lower vacancy rates on rental property.
- (2) Retail Sales and Commercial Rents - Following the success of Old Sacramento, Folsom, Benecia, and Santa Cruz, an increasing number of communities are turning to historic preservation and compatible design controls in older core areas and peripheral commercial districts. Shoppers, business people, and professionals are attracted by the closer, warmer feel of older business blocks and rental space has increased in value along with retail sales.
- (3) Tourism - Historic preservation can serve to increase the amount of tourist activity in a community. Quite often, the uniqueness of a preserved downtown area or residential neighborhood will attract the visitor seeking to experience the styles of a Gold Rush community.
- (4) Replacement Costs - In a period of diminishing resources, expensive building materials, and rising construction costs, recycling older structures is gaining credibility and popularity as more cost-effective. Despite heavier code compliance requirements and new seismic safety standards, re-use, rehabilitation, and restoration of existing structures often can be cheaper and the value returned per square foot greater.
- (5) Tax Revenue - If historic recognition makes residential property more valuable and if rehabilitation and restoration of historic structures raises their assessed value, then tax revenue correspondingly increases. Communities concerned about declining revenues in central areas or older residential sections of town should consider the benefits of historic preservation.
- (6) Tax Incentives - For the property owner, a variety of federal, state or local tax incentives may be available for recognized historic resources. This makes preservation even more enticing, and less costly.

An additional economic benefit of growing importance comes from the employment spin-offs of historic preservation. Preservation has created new jobs, new careers, new industries, and new products to supply and support preservation activity. The economic benefits of historic preservation are attracting increasing notice.

E. Social Benefits of Preservation Planning*

Historic preservation is a reinvestment in neighborhoods often considered by many to be of little worth. The residents' interest in upkeep declines and their own sense of worth suffers. This downward spiral might be reversed in the following way:

Historic preservation revalues sections of town that the inhabitants may consider cast off and demeaning places to live.

Positive inputs about the nature of the older section might life the spirits of the inhabitants and draw these people back into the life of the larger community.

Historic preservation programs structured to encourage strong citizen participation might convince long ignored groups that they have a constructive role to play in the community's present and future.

Blight, redefined as historic character, may provide an answer to a community's housing needs by allowing the rehabilitation of aged structures and renewed maintenance of homes thought to be short lived.

F. Cultural Benefits of Preservation Planning**

Preservation begins with cultural resources and the effect they have on our lives. In the past, historic resources were cherished for their patriotic association and used for instructional purposes. While such values continue to have their place in historic preservation, our understanding of the term "culture" has deepened and our attention has turned to the more subtle influences the environment has on its inhabitants.

The presence of the past can expand our understanding of who we are, where we have been, and where we might be going. The tangible presence of buildings and sites that speak of other people and other times are a form of history and enable us to chart some of the paths from the present and for the future. The styles, materials, and tastes of past inhabitants continue to supply alternatives to present choices and challenge the imagination to improve on both.

If the work of the past has been respected, we might expect that our own efforts will survive. Familiar landmarks establish a sense of permanence and well being. If we can see and touch older building materials or examples of lost craft

*Reprinted from Historic Preservation Element Guidelines, pp. 5-6.

**Adapted from California Governor's Office of Planning and Research, Historic Preservation Element Guidelines, (Sacramento, 1976), pp. 3-4.

skills, we may learn to delight in the work of another time and take more care that such treasures are preserved as surely as other non-renewable resources. Another thing we might learn is how far we have come from past mistakes.

The psychological benefits of "feeling at home" are as real and as important as the educational or aesthetic values of historic preservation. Surviving cultural resources establish that a town has had a life of its own. Place names continue to fascinate large numbers of people. Some people become keenly interested in the builders and take pride in being able to identify a house as the work of a certain architect. When these historic vestiges have a wider significance in the history of the state, region, or nation, the pride in retelling grows accordingly.

We discover that our own place in time has a special character we have only begun to know and that our interest in its still hidden traits has suddenly grown. We seize our place once again as something important to us, as part of our meaning. A major cultural benefit is attachment to place. People can learn from their community; they can learn history and architecture, they can learn pride, they can learn delight, and they can learn to care for their place.

G. Planning Benefits*

Knowledge of the community's past helps in understanding emerging patterns and future expectations. In fully built communities, preservation planning may be, in fact, the most realistic approach to reviving or maintaining the viability of the city. A greater knowledge of the community's cultural resources provides a stronger base for better planning and more informed decision-making.

The Historic Preservation Element provides assistance to planners in the form of popular support. If the element is structured as a set of policies and accompanying programs that work from general goals for the community down to specific programs at the block level, citizens are better able to understand what preservation means to them and to their street. If the planner involves citizens early and continually in the design of the preservation program the results should be positive.

Finally, planners can prepare themselves for future tasks. Environmental review requires knowledge of cultural resources in the community and the ability to assess potential impacts on these resources. Preservation planning's first task is to survey and inventory cultural resources. With survey information

*Reprinted from the Historic Preservation Element Guidelines, pp. 6-7.

available, planners can guide future projects around valuable sites or structures and can take steps to minimize detrimental impacts when cultural resources are unavoidably part of an impact area.

The historic preservation element gives planners the legal authority to pursue preservation goals. The general plan consistency requirement (California Government Code 65660) further assures planners and citizens that future community planning will reflect preservation goals when historic preservation, by elevation to element status, becomes public policy.

In the end, everyone benefits. Historic preservation planning makes for a better community by stressing positive community attributes. By providing assurance that the special sense of place will survive, the people are given reason to commit their own futures to the community. The element should invite citizens to help protect and enhance those aspects that first attracted them or keep them there - the historic character or distinct charm of the community. The tie with the past establishes continuity and builds roots. Taking part in preserving the past builds pride and creates good feelings about the future.

H. Inventory of Historic Resources

In late 1981 and early 1982, the Central Sierra Planning Council, with the support and assistance of the Tuolumne County Historical Society, completed an inventory of potentially historic resources (buildings) found within the City. Some 200 forms, on a format approved by the State of California's Office of Historic Preservation, were completed. The inventory serves several purposes within the scope of the preparation of this element, and historic preservation in general.

First, the inventory is a starting point in setting the framework for an official listing of sites, for it is from the inventory that the initial list will be prepared.

Second, the inventory serves to promote interest in local historic preservation, in both the residential and business community.

Third, the inventory can serve as an educational device for decision makers, staff, and the general public, as to the styles, types, etc., of resources existing in the City.

The inventory did not cover such resources as archeological sites, stone walls, retaining walls, plantings or other landscaping; however, as a point of reference, the inventory marks a significant start toward realistic historic preservation within the City.

PLANNING AREA ISSUES AND CONCERNS

- 1) Historic preservation could provide an economic value to tourism and business, and keep the downtown vital for residents and visitors.
- 2) In recognition of the historic flavor of the area, there are identified cultural, economic, social, and planning benefits that may be derived from historic preservation.
- 3) No formal mechanism exists to identify and recognize significant historical resources located within the City.
- 4) As the City of Sonora continues to grow and develop, the potential exists for the historical integrity of the community to be endangered.
- 5) That within the City, the government level is an appropriate place to initiate preservation planning.

GOAL STATEMENT

The following goals are established for guidance of efforts to implement the Sonora General Plan Historic Preservation Element:

"To recognize and retain the authentic cultural heritage of the City of Sonora."

"To provide for protection, preservation, and restoration of significant resources."

"To provide a positive atmosphere for business and visitor activity within a historic environment."

"To emphasize and promote the overall visual attractiveness of Sonora."

"To enhance individual neighborhoods and districts by providing an environment which encourages pride and identity."

POLICIES AND IMPLEMENTATION MEASURES

The following policies are established to provide guidance and commitment toward attainment of the stated goals. The implementation measures following each policy are actions intended to carry out the policy.

POLICY: Establish and maintain an advisory committee to the City on historic preservation matters.

IMPLEMENTATION: The Planning Commission shall appoint a Landmarks Committee which will serve as an advisory body to the Planning Commission. By-laws of the committee, approved by the City Council, will be established in order to define the roles and responsibilities of the committee's members. The committee will be comprised of five members, as follows: one planning commissioner, one representative of the Tuolumne County Historical Society, one representative of the business community, one member from the general public, and one city staff member. Staff support to the committee will be supplied by existing staff.

POLICY: Maintain an official listing of significant local historic resources located in the City.

IMPLEMENTATION: In establishing the official listing, the Landmarks Committee will utilize the existing inventory of potentially historic resources. Evaluation of the resources shall be done according to the criteria for historic

evaluation as presented in Appendix A of this element. The committee's recommendation for the listing will be presented to the Planning Commission for review; the Planning Commission's recommendation will be forwarded to the City Council for final action. Thereafter, any and all proposals for inclusion to the listing shall be evaluated according to the process described above.

POLICY: Utilize the provisions of Sonora Municipal Code Chapter 17.32, Design Review/Historic Zone to further preservation efforts.

IMPLEMENTATION: Upon completion of the City's listing of significant historic structures, the Landmarks Committee may examine the provisions of the design review/historic zone, and make recommendations to the design review/historic committee on actions which should be considered to further implement the zone.

IMPLEMENTATION: The Landmarks Committee may also provide advice to the City on possibilities for designation of historic districts.

POLICY: Consider the use of property tax incentives for historic structures.

IMPLEMENTATION: Efforts have been initiated within the business community to strengthen the economic potential of downtown Sonora through restoration and revitalization. Indeed, a streetscape with a historical theme would prove to be a commercial advantage. The City of Sonora encourages these efforts from the private sector, and, seeks to assist where appropriate and feasible.

IMPLEMENTATION: The City will look into official certification under the State's Certified Local Government (CLG) Preservation Program. If certified under this program, the City would be eligible to compete for funds that are specifically set aside for CLG's for historic preservation activities.

POLICY: Encourage individual restoration efforts of historic neighborhoods and homes.

IMPLEMENTATION: Each year, a number of small projects are undertaken to restore older homes. This private effort is meaningful in that the older housing stock is reflective of past life styles, and serves as a reminder of the City's

development, and increases the value of property, neighborhood, and town. The City shall continue to encourage these efforts. The Landmarks Commission may be called upon to advise on how to accomplish this.

APPENDIX A

CRITERIA FOR HISTORIC EVALUATION

The purpose of the Criteria for Historic Evaluation is to review and properly recognize the truly significant historical structures located within the City of Sonora. These criteria are important toward developing a meaningful historical preservation program in the City.

I. Historic Considerations

1. Is the structure associated with the life or activities of a major historic person (more than a "slept here" type of association)?
2. Is it associated with a major group or organization in the history of the nation, state, or community (including significant ethnic groups)?
3. Is it associated with a major historic event (whether cultural, economic, military, social, or political)?
4. Is the building associated with a major recurring event in the history of the community (such as an annual celebration)?
5. Is it associated with a past or continuing institution which has contributed substantially to the life of the city?

II. Architectural Considerations

1. Is the structure one of few of its age remaining in the city?
2. Is it a unique example in the city of a particular architectural style or period?
3. Is it one of the few remaining examples in the city of a particular architectural style or period?
4. Is it one of many good examples in the city of a particular architectural style or period?
5. Is the building the work of a nationally famous architect?
6. Is it a notable work of a major local architect or master builder?
7. Is it an architectural curiosity or picturesque work of particular artistic merit?

8. Does it evidence original materials and/or workmanship which can be valued in themselves?
9. Has the integrity of the original design been retained or has it been altered?

III. Setting Considerations

1. Is the structure generally visible to the public?
2. Is it, or could it be, an important element to the character of the city?
3. Is it, or could it be, an important element to the character of the neighborhood (either alone or in conjunction with similar structures in the vicinity)?
4. Does it contribute to the architectural continuity of the street?
5. Is the building on its original site?
6. Is its present setting (yards, trees, fences, walls, paving treatment, outbuildings, and so forth) appropriate?
7. Are the structure and site subject to encroachment of detrimental influences?

IV. Use Considerations

1. Is the building threatened with demolition by public or private action?
2. Can it be retained in its original or present use?
3. Does it have significant educational value to warrant consideration as a museum use?
4. Is it adaptable to productive reuse?
5. Are the building and site accessible, served by utilities, capable of providing parking space, covered by fire and police protection, and so forth, so that they can feasibly be adapted to contemporary use?
6. Can the structure be adapted to a new use without harm to those architectural elements which contribute to its significance?

Upon completion of answering the questions in Sections I-IV, a composite evaluation is made of the resource to determine whether it is eligible or not eligible to be on the City's

official listing. If it is eligible, then the questions in Section V need to be answered.

V. Property Owner and Cost Considerations

1. Does the property owner feel that preservation or restoration is economically feasible?
2. Does the property owner feel that continued maintenance after restoration is economically feasible?
3. Is the property owner willing to consent to being added to the City's official listing of significant local historic resources?

If the property owner is willing to consent, then the resource should be recommended for listing. If the property owner is not willing to consent, the resource should be filed as eligible, but without property owner consent.

SOURCE OF CRITERIA: Ralph W. Miner, Conservation of Historic and Cultural Resources, American Society of Planning Officials, Planning Advisory Service, March, 1969.

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1. The first part of the document
describes the general situation
of the country and the
state of the economy.

2. The second part of the document

describes the situation in the
different regions of the country
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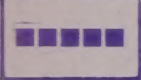
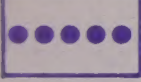
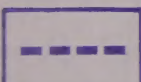
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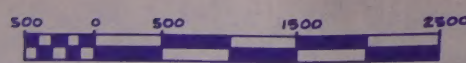
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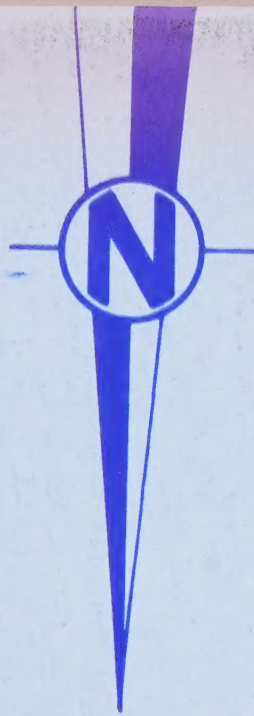
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LAND USE & CIRCULATION MAP

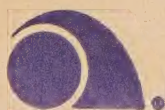
- RS** RESIDENTIAL - SINGLE FAMILY
- RM** RESIDENTIAL - MULTIPLE FAMILY
- C** COMMERCIAL
- I** INDUSTRIAL
- PF** PUBLIC FACILITIES

-  SONORA BYPASS
-  OTHER REGIONAL IMPROVEMENTS
-  CITY STREET IMPROVEMENTS





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